DOCUMENT RESUME

ED 460 255 CE 074 736

TITLE	Eastern Adult, Continuing, and Distance Education Research Conference Proceedings (University Park, Pennsylvania, October 24-26, 1996).
INSTITUTION	Pennsylvania State Univ., University Park. Coll. of Education.
PUB DATE	1996-10-00
NOTE	327p.
PUB TYPE	Collected Works - Proceedings (021)
EDRS PRICE	MF01/PC14 Plus Postage.
DESCRIPTORS	*Adult Education; Adult Educators; *Adult Learning; Adult Programs; Bachelors Degrees; Basic Skills; Computer Managed Instruction; Correctional Education; Developing Nations; *Disabilities; *Distance Education; Education Work Relationship; Educational Planning; *Educational Research; Employment Potential; Foreign Countries; Higher Education; Independent Study; Information Technology; Leadership Qualities; Learning Theories; Older Adults; Professional Development; Sex Differences; Teacher Education; Teaching Methods; Teleconferencing; *Womens Education
IDENTIFIERS	Hungary; Poland; Russia

ABSTRACT

Includes the following among 52 papers: "Accelerated Degree Programs" (Anderson et al.); "Basic Skills in the Workplace" (Askov); "Breaking All the Rules" (Baird); "Data Mining for Factors Affecting the Implementation of Interactive, Computer-Mediated Instructional Techniques for Students at a Distance" (Bielema); "Continuing Higher Education in Hungary" (Boyer); "Program Development Using Distance Learning Technologies" (Boyer); "Factors of Distraction in a One-Way Video, Two-Way Audio Distance Learning Setting" (Briggs, Wagner); "Acceptance of Technical Media Study" (Carmichael, Cegles); "Processes of Adult Learning" (Cavaliere); "Participation of Older Adults in Educational Programs" (Chen); "Adult Education and Employability" (Chene, Voyer); "Why Do Adult Educators in the Employment and Training Field Participate in Continuing Professional Education?" (Childers); "Mailing Lists as a Venue for Adult Learning" (Collins, Berge); "What Can Men Learn from Women About Academic Adjustment to College?" (Deely); "Experiences of High School Seniors, Teacher, and Administrators in a Distance Learning Calculus Course" (Downs); "Adult Education's Role in the Post-Secondary Education and Employment of People with Disabilities" (DuBois, Klinger); "Critical Thinking, Developmental Learning, and Adaptive Flexibility in Organizational Leaders" (Duchesne); "Moving into Interactive Video Instruction" (Dumestre, Noel); "Learning Theory Applied to Adults" (Ferro); "Alternative Methods, Alternative Delivery Systems" (Fowler, Strunk);"Identifying Factors that Promote Perspective Transformation in Higher Education" (King); "Effects of Gender Differences on College Outcomes for Adult Graduates" (Knezek); "Faculty Awareness and Use of Adult Learning Principles" (Lawler et al.); "Development of a Computer-Based Telecommunications Network for Diabetes Educators in West Virginia" (Lewis, Jacknowitz); "The Video-Teleconference HRD [Human Resource Development] Classroom" (Niemi et al.); "Patterns of Interaction in an International Audioconferencing Course" (Nti, Bunker); "Distance Education and Media Technologies" (Obregon, Uppal); "Playing in the Cyberspace Sandbox" (Palloff, Pratt); "Deconstruction Model of Literacy's

Reproductions supplied by EDRS are the best that can be made
from the original document.

Political and Cultural History" (Quigley); "Learning and New Voices" (Resides); "New Roles for Continuing Education" (Surridge); "Lifelong Learning in Museums" (Svedlow); "Issues in Adult Education Historiography" (Thompson); "Applying Adult Learning Theories to Technology-Based Instruction" (Wagner); "Significance of Transformative Learning in Adults Enrolled in a Teacher Education Program" (Weirauch); "Faculty as Adult Learners" (Wilhite et al.) and "Adult Education for Workers" (Wolensky). (YLB)

Reproductions supplied by EDRS are the best that can be made
from the original document.

ED 460 255

Eastern Adult, Continuing, and Distance Education Research Conference
October 24-26, 1996
Conference Proceedings

BEST COPY AVAILABLE

Pennsylvania State University
University Park, Pennsylvania

CE074736

U.S. DEPARTMENT OF EDUCATION
Office of Educational Research and Improvement
EDUCATIONAL RESOURCES INFORMATION
CENTER (ERIC)
☑ This document has been reproduced as received from the person or organization originating it
☐ Minor changes have been made to improve reproduction quality
• Points of view or opinions stated in this document do not necessarily represent official OERI position or policy

PERMISSION TO REPRODUCE AND
DISSEMINATE THIS MATERIAL HAS
BEEN GRANTED BY
E. N. Askov
TO THE EDUCATIONAL RESOURCES
INFORMATION CENTER (ERIC)

The Eastern Adult, Continuing, and Distance Education Research Conference
October 24-26, 1996
Conference Proceedings

CD ROM INDEX
By Primary Author

- Kathleen Rex Anderson
  - Valerie Ward Hollis
  - Al Lisk
  - Honour Moore
  - Robert Palestini
    - Accelerated Degree Programs: Alternative Delivery Models for Adult Degree Programs in the Philadelphia Area

- Eunice N. Askov
    - Basic Skills in the Workplace: A Framework for Establishing Skill Standards

- Irene C. Baird
    - Breaking All the Rules: Reading Angelou, Morrison, Crow Dog, and the Lives of Prison Women

- Cheryl L. Bielema
    - Data Mining for Factors Affecting the Implementation of Interactive, Computer-mediated Instructional Techniques for Students at a Distance

- Cheryl M. Boyer
    - Continuing Higher Education in Hungry: Implications for International Cooperation

- Cheryl M. Boyer
    - Program Development Using Distance Learning Technologies: Perspectives of the Distance Location

- Lowell A. Briggs
    - Electronic Performance Support Systems: Task Enhancer or Training Fad

- Lowell A. Briggs
  - G. Dale Wagner
    - Factors of Distraction in a One-Way Video, Two-Way Audio Distance Learning Setting

Susan J. Carmichael
Kathleen A. Cegles
Acceptance of Technical Media Study

Lorraine Cavaliere
The Process of Adult Learning: Failure as Feedback for Motivation

Yau-Jane Chen
Participation of Older Adults in Educational Programs: A Social Gerontological Perspective

Adele Chene
The Case-Study Method, Practical Knowledge and Common Sense

Adele Chene
Brigitte Voyer
Adult Education and Employability

Jeri L. Childers
Program Planning for International Audiences: Developing Needs Assessments and Culturally Sensitive Program Development Processes

Jeri L. Childers
Why Do Adult Educators in the Employment and Training Field Participate in Continuing Professional Education?

Mauri P. Collins
Zane Berge
Mailing Lists as a Venue for Adult Learning

Sara R. Deely
What Can Men Learn From Women About Academic Adjustment to College? An Analysis of the Factors That Contribute to Gender Differences in College Adjustment.

Margaret E. Downs
Experiences of High School seniors, Teacher, and Administrators in a Distance Learning Calculus Course

David A. Du Bois
Mary G. Klinger
Adult Education's Role in the Post-Secondary Education and Employment of People with Disabilities

Robert Duchesne
Critical Thinking, Developmental Learning, and Adaptive Flexibility in Organizational Leaders

Marcel Dumestre
R. Dawn Noel
Moving into Interactive Video Instruction: Lessons for Faculty and Administrators

Trenton R. Ferro
Learning Theory Applied to Adults: A Proposed Model

Trenton R. Ferro
Siddhartha's spiritual Odyssey: An Analysis of Herman Hesse's Siddhartha Based on Fowler's Stages of Faith Development

Jaclyn M. Fowler-Frey
Sandra J. Strunk
Alternative Methods, Alternative Delivery Systems: The Professional Development of ABE Practitioners

Barbara A. Frey
A Review of Literature: Improving Instructor's Presentation Skills

K. Godel Gengenbach
Janusz Bromboszcz
Poland: Higher Education in Transition

Nancy Grudens-Schuck
Steven G. Hall
Molly Anderson
Jill Shore Auburn
Kim Leval Staritzky
Professional Development for Sustainable Agriculture Educators Through SAEd-Share-L Electronic Conference

Robert J. Hill
"In a Company Town, When You Need Help, Where Do You Turn?": The Effects of Ideological Colonization on Democratic Life in an Industry Polluted Community in Appalachia

Sharon L. Howell
Judy Preston
Fred Schied
Vickie Carter
Creating a Learning Organization, Creating a Controlling Organization: A Case Study of Total Quality Management in an Industrial Setting

Carole Karinshak
Experiences of a Feminist Researcher: Discovering the Connection Between Prior and Current Educational Experiences of Homeless Adults

Wayne R. Kenney
"A Great Conspiracy": Self-Directed Learning Among Protestant Clergy in Russia

Kathleen P. King
Identifying Factors that Promote Perspective Transformation in Higher Education: A Model

Claudia Knezek
Effects of Gender Differences on College Outcomes for Adult Graduates Continuing Education

Patricia Lawler
Arlene D. DeCosmo
Stephen C. Wilhite
Faculty Awareness and Use of Adult Learning Principles

Deborah Lewis
Linda Jacknowitz
Development of A Computer Based Telecommunications Network for Diabetes Educators in West Virginia

Barbara G. Ludwig
What is and What Ought to Be? Using the Delphi to Determine Future Directions

David Manzo
Manual Gonzalez
When Bonds Are Broken

John A. Niemi
Kevin Owens
Barbara J. Ehrhard
The Video-Teleconference HRD Classroom: Effective Practice Through Quantitative and Qualitative Evaluation Research

Naana Nti
Ellen Bunker
Patterns of Interaction in an International Audioconferencing Course: An Application of the Multi-Dimensional Audioconferencing System (MACS)

Rafael Obregon
Charu Uppal
Distance Education and Media Technologies: The Case of Indira Gandhi Open University in India

Rena M. Palloff
Keith Pratt
Playing in the Cyberspace Sandbox: The Intersection of the Human and Electronic Communities

B. Allan Quigley
A Deconstruction of Literacy's Political and Cultural History: The Potential for Postmodern Change

Thomas G. Reio, Jr.
Curiosity: A MultiDimensional Dynamic in the Workplace

Diane Resides
Learning and New Voices: Lesbian Development and the Implication for Adult Education

Robert W. Surridge
Continuing Higher Education: Assessing Readiness for Change

Andrew Jay Svedlow
Lifelong Leaning in Museums: In Pursuit of Andragogy

Melody M. Thompson
Issues in Adult Education Historiography: The Case of Women in the Histories and Foundational Literature

G. Dale Wagner
Applying Adult Learning Theories to Technology-Based Instruction

Roberta L. Warren
Adult Women: Outcomes of Achievement of a Baccalaureate Degree

Drucilla Conner Weirauch
The Significance of Transformative Learning in Adults Enrolled in a Teacher Education Program

Stephen C. Wilhite
Arlene D. DeCosmo
Patricia Lawler
Faculty as Adult Learners: Implications for Faculty Development Initiatives

Kenneth C. Wolensky
Adult Education For Workers: The International Ladies' Garment Workers' Union in Northeastern Pennsylvania, 1944-1963

Eastern Adult Continuing & Distance Edu.

10/24/1996 to 10/26/1996

The Pennsylvania State University
University Park, Pennsylvania

Registration List

Robin Allardyce
Carleton University
Director Instructional TV
Rm 302 Robertson Hall
1125 Colonel By Dr.
Ottawa Ontario K1S 5B6 Canada

Kathleen Rex Anderson
Chestnut Hill College Accelerated
Associate Dean
9601 Germantown Ave.
Philadelphia, PA 19118-2693

Susan A. Ariosa
Calder Square
P.O. Box 10241
State College, PA 16805-0241

Eunice N. Askov
The Pennsylvania State University
Director, Prof of Ed.
Inst for the Study of Adlt Lit
102 Rackley Bldg.
University Park, PA 16802-3202

Irene C. Baird
Penn State University Harrisburg
Dir Womens Enrichment Ctr
1010 N. 7th St.
Harrisburg, PA 17102

Hal W. Beder
Rutgers University
Professor
Grad. School of Education
10 Seminary Place
New Brunswick, NJ 08903

Zane L. Berge
UMBC
1000 Hilltop Circle
Baltimore, MD 21250

10/24/1996 to 10/26/1996

The Pennsylvania State University
University Park, Pennsylvania

Registration List

Cheryl L. Bielema
University of Illinois
Extension Spec. Communications
51 Mumford Hall
1301 W. Gregory
Urbana, IL 61801

David M. Birdwell
US Army War College
Director, Distance Education
Root Hall Rm. B-302
Carlisle Barracks, PA 17013

Cheryl M. Boyer
Temple University at Harrisburg
Director
223 Walnut Street
Harrisburg, PA 17101

Lowell A. Briggs
York College of PA
Country Club Road
York, PA 17405

Diane V. Brown
The Pennsylvania State University
Assoc. Dean
217 Ag. Admin. Bldg.
University Park, PA 16802

Ellen L. Bunker
The Pennsylvania State University
Project Assistant
110 Rackley Bldg.
University Park, PA 16802

Susan J. Carmichael
Numed Home Health Care
5770 Roosevelt Blvd.
Suite 700
Clearwater, FL 33708

10/24/1996 to 10/26/1996

The Pennsylvania State University
University Park, Pennsylvania

Registration List

Andree Rose Catalfamo	The Pennsylvania State University Doctoral Student 102 Rackley Building University Park, PA 16802
Lorraine A. Cavaliere	Gwynedd Mercy College Dean of Education Sunnytown Pike Gwynedd Valley, PA 19437
Kathleen A. Cegles	Gannon University Asst. Prof. 109 University Square PAC 393 Erie, PA 16541-0001
Adele Chene	Universite De Montreal Dr. Faculte Des Sciences De L'Education P.P. 6128 Succursale CentreVille Montreal Quebec H3C 3J7 Canada
Jeri Y. Childers	The Pennsylvania State University Sr Program Planner Continuing and Distance Ed 403 Keller Bldg University Park, PA 16802
Jack Coleman	Baptist Bible College & Seminary Director of Video Comm. P.O. Box 800 538 Venard Road Clarks Summit, PA 18411
Marilynn A. Cowgill	Merrill Lynch 110 N. Duke St. P.O. Box 83645 Lancaster, PA 17603

10/24/1996 to 10/26/1996

The Pennsylvania State University
University Park, Pennsylvania

Registration List

Sheila Crowell	The Pennsylvania State University Grad. Assistant 116 Beam University Park, PA 16802
Mellinda M. Curis	Keystone College Instructional Specialist P.O. Box 50 La Plume, PA 18440-0200
Gordon Darkenwald	Rutgers University Professor Grad School of Education New Brunswick, NJ 08903
Ellen M. Dauwer	College of St. Elizabeth Assoc. Dean 2 Convent Rd. Morristown, NJ 07960
Sara R. Deely	Rowan College Dr. Sociology Dept. Glassboro, NJ 08028
Connie C. Dempsey	ICS Learning System Director of Educational Servcs 925 Oak St. Scranton, PA 18515
Susan Dougherty	University of South Carolina Curriculum Developer Ctr for Child and Family Studies College of Social Work Columbia, SC 29208

10/24/1996 to 10/26/1996

The Pennsylvania State University
University Park, Pennsylvania

Registration List

David A. DuBois
Suny Empire States College
8 Prince Street
Rochester, NY 14607

Robert Duchesne
University of Connecticut
Consultant
265 Lewiston Ave.
Willimantic, CT 06226

Marel J. Dumestre
Loyola University New Orleans
Dean City College
Box 14
6363 Saint Charles Ave.
New Orleans, LA 70118

Marian Eberly
Rutgers University
Student
10 Seminary Place
New Brunswick, NJ 08903

Dana S. Fahnholz
Texas A&M University-Kingsville
Office Manager
Center for Continuing Education
Campus Box 147
Kingsville, TX 78363

Trenton R. Ferro
Indiana University of Pennsylvania
Asst. Prof.
231 Stouffer Hall
Indiana, PA 15705

David J. Fetterman
First United Methodist Church
3916 Old William Penn Highway
Murrysville, PA 15668

10/24/1996 to 10/26/1996

The Pennsylvania State University
University Park, Pennsylvania

Registration List

Wesley E. Franklin
Luzerne County Community College
Assoc. Dean
1333 S. Prospect Street
Nanticoke, PA 18634

Barbara Frey
The Pennsylvania State University
Grad Student
603 Driftwood Drive
Pittsburgh, PA 15238-2515

Lenora Peters Gant
Defense Intelligence Agency
Dir. of Special Tech.
11 Alexandria Overlook
Oxon Hill, MD 20745

Mary V. Garza
'Ginny'
The Pennsylvania State University
Grad Student
314 Keller Bldg.
University Park, PA 16802

William J. Gibbons
Syracuse University
PhD Student
6333 Meridan Rd.
Jamesville, NY 13078

Nyles A. Gray
Delaware County Community College
Adjunct Faculty
Rt. 252 and Media Line Rd.
Media, PA 19063

Julie B. Griffin
Planters/Lifesavers
Dir. of Employee Training
245 Culloden St.
Suffolk, VA 23434

10/24/1996 to 10/26/1996

The Pennsylvania State University
University Park, Pennsylvania

Registration List

Nancy E. Grudens-Schuck
Cornell University
Ph.D. Candidate
14 Home St.
Apt. 202
Guelph Ontario N1H 2E5 Canada

Kathleen Gudel-Gengenbach
Jagiellonian Univ-Collegium Medicum
Consultant
UL Kopernika 25
Krakow 31-501 Poland

Irene M. Hodge
Allegheny County Health Dept.
Eduication Coordinator
3441 Forbes Ave.
Pittsburgh, PA 15213

Patricia Shawn Jenkins
The Pennsylvania State University
Project Assistant
Inst for the Stu of Adult Lit
102 Rackley Bldg
University Park, PA 16802

Irene Kaplan
Albany College of Pharmacy
Library Director
106 New Scotland Ave.
Albany, NY 12208

Carole B. Karinshak
The Pennsylvania State University
Grad Student
314 Keller
University Park, PA 16802

Kathleen P. King
Pennsylvania Institute of Technology
800 Manchester Ave.
Media, PA 19063

10/24/1996 to 10/26/1996

The Pennsylvania State University
University Park, Pennsylvania

Registration List

Mary G. Klinger
State Univ of New York, Empire St Coll
Asst. Professor/Mentor
22 W. 3rd Street
Corning, NY 14830

Claudia M. Knezek
Rutgers Center for Govt. Services
33 Livingston Ave.
Room 200
New Brunswick, NJ 08901

Kathleen R. Kramer
Temple University Harrisburg
Assoc. Director
223 Walnut St.
Harrisburg, PA 17101

Judith S. Krom
Thomas Edison State College
Associate Dean
101 W. State Street
Trenton, NJ 08608

Patricia A. Lawler
Widener University
Assoc. Professor
One University Place
Chester, PA 19013

Robert H. Lehman
Alabama A & M University
Dean, School of Grad. Students
230 Reed Rd.
New Market, AL 35761

Deborah A. Lewis
West Virginia University
Asst. Professor
School of Nursing
6407 HSS, P.O. Box 9610
Morgantown, WV 26505

10/24/1996 to 10/26/1996

The Pennsylvania State University
University Park, Pennsylvania

Registration List

Ben Eng-Kiat Lim	The Pennsylvania State University Grad Student 314 Keller University Park, PA 16802-1303
Alan R. Lisk	Eastern College 56 Main Street Wayne, PA 19087
James M. Lytle	ICS Learning Systems VP Prod Dev 925 Oak St. Scranton, PA 18515
Murray D. Mactavish	Eastern College Director 10 Fairview Drive St. Davids, PA 19087-3696
Linda R. Madden-Brenholts	Carlow College Sr. Counselor 3333 Fifth Ave. Pittsburgh, PA 15213
David A. Manzo	Northampton Community College Program Coordinator Adult Literacy 3835 Green Pond Rd. Bethlehem, PA 18017
Albert C. May, Jr	The Pennsylvania State University 240 Harbison Rd. Sarver, PA 16055

10/24/1996 to 10/26/1996

The Pennsylvania State University
University Park, Pennsylvania

Registration List

Joyce S. McKnight	Inst. for the Sup. of Comm. Initiative Doctor 763 Linden Avenue Johnstown, PA 15902
Masae Mitsuhashi	Rutgers University D.P.O. 50 P.O. Box 2005 New Brunswick, NJ 08903
Jamie Morin-Reynolds	Saint Joseph's College Dir. Distance Ed. Admissions Distance Education Program 278 Whites Bridge Rd. Standish, ME 04084-5263
Diane A. Morrison	Saint Joseph's College Dir. of Instr. Support Service Distance Education Program 278 Whites Bridge Rd. Standish, ME 04084-5263
Gary D. Narbut	Erie School District Teacher Adult Learning Ctr./E.C.P. 2931 Harvard Road Erie, PA 16508
April K. Neal 'April Neal'	The Pennsylvania State University Project Assistant 307 Cedar Bldg. University Park, PA 16801
John A. Niemi	Northern Illinois University Distinguished Teaching Prof. 101 Gabel Hall DeKalb, IL 60115

10/24/1996 to 10/26/1996

The Pennsylvania State University
University Park, Pennsylvania

Registration List

Dawn Noel
Loyola University New Orleans
Dir. Student Services
Box 14
6363 Saint Charles Ave.
New Orleans, LA 70118

Naana O. Nti
The Pennsylvania State University
Graduate Assistant
323 Agricultural Admin. Building
University Park, PA 16802

Robert H. Palestini
St. Joseph's University
Dean
5600 City Ave.
Philadelphia, PA 19131

Rena M. Palloff
John F. Kennedy University
Asst. Professor
206 Lugunaria Ln
Alameda, CA 94502

Lynn R. Patton
Albany College of Pharmacy
Dir. Postgrad. Professional Ed
106 New Scotland Ave.
Albany, NY 12208-3492

Teresa M. Peck
Susquehanna University
Asst. Dir. of Cont. Education
530 University Ave.
Selinsgrove, PA 17870

Barry C. Phillips
Baptist Bible College
Academic Dean
538 Venard Road
Clarks Summit, PA 18411

10/24/1996 to 10/26/1996

The Pennsylvania State University
University Park, Pennsylvania

Registration List

Henry Keith Pratt

Ottawa University
Asst. Professor
Crossroads Consulting
825 W. 7th Street
Ottawa, KS 66067

Amalvayal K. Rangaswami

Widener University
Doctorate Student
1301 N. Harrison Street
Apt. 1505
Wilmington, DE 19806

Laura Reed-Morrisson

The Pennsylvania State University
Grad Student
403k Keller
University Park, PA 16802

Thomas G. Reio, Jr

Virginia Poly. Inst. & State Univ.
2990 Telestar Court
Falls Church, VA 22042

Dave Rockwell

Baptist Bible College & Seminary
Professor
P.O. Box 800
538 Venard Road
Clarks Summit, PA 18411

Sandra D. Scanlon

Community College Alleghany County
Trng Coordinator
1409 Magnolia Court
Bethel Park, PA 15102

Fred M. Schied

The Pennsylvania State University
314 Keller Bldg.
University Park, PA 16803

Thomas J. Seifried	The Pennsylvania State University Grad Student 314 Keller University Park, PA 16802
Daniel Sell	Jamestown Community College Library Director 525 Falconer St. Jamestown, NY 14701
Dehra W. Shafer 'Dehra Shafer'	The Pennsylvania State University Program Planner Continuing and Distance Ed. 403 Keller Bldg. University Park, PA 16802
Jim Showers	Baptist Bible College & Seminary Seminary Registrar P.O. Box 800 538 Venard Road Clarks Summit, PA 18411
Barry Smith	Baptist Bible College and Seminary Dir., Research and Technology P.O. Box 800 538 Venard Road Clarks Summit, PA 18411
Sandra J. Strunk	Lancaster Lebanon Intermediate Unit 13 Adult Education Specialist 1 Cumberland St. Lebanon, PA 17042
Mary A. Sullivan	Pennsylvania College of Technology Director, Acad. Support Serv. One College Avenue Williamsport, PA 17701

10/24/1996 to 10/26/1996

The Pennsylvania State University
University Park, Pennsylvania

Registration List

Robert W. Surridge	Penn State - Harrisburg Asst. Provost 777 W. Harrisburg Pike Middletown, PA 17057
Andrew J. Svedlow	Manchester Institute of Arts & Sciences President 148 Concord Street Manchester, NH 03104
Melody M. Thompson	The Pennsylvania State University Publication Editor Amer. Ctr for Study of Dist Ed 110 Rackley Bldg. University Park, PA 16802
Elaine M. Trumble	Saint Joseph's College Dir. Student Support Services Distance Education Program 278 Whites Bridge Rd. Standish, ME 04084-5263
Dorothy J. Umans	University of Maryland - College Park Doctoral Student 3 Hartley Cr. No. 324 Owings Mills, MD 21117
Charu Uppal	P.O. Box 10635 Calder Way State College, PA 16805
Sveflana G. Vinogradova	LPO 16253 P.O. Box 5064 New Brunswick, NJ 08903-5064

10/24/1996 to 10/26/1996

The Pennsylvania State University
University Park, Pennsylvania

Registration List

G. Dale Wagner	Department of Defense Attn: S32 9800 Savage Road Fort Meade, MD 20755
Roberta L. Warren	RLW Associates Dr. 100 Rotary Dr. Summit, NJ 07901
Nerelda C. Washington	University of the Virgin Islands Asst. to Dean of IAA R.R. 2, 10,000 Kingshill 00851 U.S. Virgin Islands
Margaret Moss Watson 'Peggy'	ADTED Student 10 Pheasant Lane Export, PA 15632
Drucie C. Weirauch	Indiana University of PA Faculty/Coordinator 303 Davis Hall Indiana, PA 15750
MaryAnn Whittemore	Grad Student 11 Joseph Ct. New Egypt, NJ 08533-1817
Stephen C. Wilhite	Widener University Dean One University Place Chester, PA 19013

10/24/1996 to 10/26/1996

The Pennsylvania State University
University Park, Pennsylvania

Registration List

Kenneth C. Wolensky
214 Kelley Court
Grantville, PA 17028

Linda M. Woleslagle
Kirk Limited International
President & CEO
242 Whilton Dr.
Shillington, PA 19607

Dorothy M. Zeiser
St. Joseph College
Assoc. Prof.
1678 Asylum Ave.
West Hartford, CT 06117

Christine A. Zuzack
136 Hamilton St.
Indiana, PA 15701

ACCELERATED DEGREE PROGRAMS
ALTERNATIVE DELIVERY MODELS FOR ADULT DEGREE PROGRAMS IN THE GREATER PHILADELPHIA AREA

Dr. Kathleen Rex Anderson
Dr. Valerie Ward Hollis
Alan Lisk
Honour Moore
Dr. Robert Palestini

ABSTRACT

Accelerated degree programs and traditional continuing education offerings when compared are like apples and oranges. The goals are similar, but the design to reach goal is very different. Even among accelerated degree programs the alternative delivery models are creatively different. This symposium is designed to present an overview of five considerations in the delivery of accelerated undergraduate degrees.

Continuing adult education has taken a new spin in recent years in the Greater Philadelphia area. New models of delivering undergraduate degrees and degree completion programs responded to adult student demands that ideal programs be convenient, flexible, and of high quality. Location and schedule have been determining variables in the alternative delivery of college degrees. The competitive market in this geographical area includes programs with and without age limitations, with and without previously acquired credit requirements, with and without related work experience, and with modular design as well as a condensed traditional degree model. Some models are lock step programs while others offer step-in/step-out opportunity. All programs include the pedagogy of the adult learner with slight variations and support the missions of the individual college/university.

INTRODUCTION

Regardless of the delivery model, accelerated degree programs have been developed in response to geo-demographic forecasts. These programs are both related to the existing mission of the institution and to the expressed needs of a growing adult student population. The curriculum considers the recent pedagogy on adult learning theory and is accountable to the outcomes both requested by adult students and promoted by the institution. Although the presenters represent uniquely creative interpretations of fast-track programs, they agree that the foundations for alternative delivery degrees begin with a commitment to quality.

INSTITUTIONAL MISSION

It stands to reason that educational programming and institutional missions should be complementary. It is doubtful that programming which does not support organizational objectives could survive over time given the nature of accreditation reviews. Boyer (1990) calls for institutions of higher education to become more flexible and creative while pursuing distinctive missions. While this does not support altering mission objectives on a frequent basis, Boyer does suggest the development of mission objectives that are broad based and encourage innovation as shared values and common aims are important characteristics in college learning (Willimon and Naylor, 1995) or in any other organizational setting.

Current traditional semester paradigms developed during an agrarian economy do not fit today's informational society when over 40% of college students are classified as adults. Adults are creating the biggest educational sector in the country (Eurich, 1990). Adult students who enter classrooms have expectations that are both high and consumer-oriented (Frye, 1994). Staff and faculty in higher education environments need to align programming and scheduling with student needs as customers and therefore, a significant source of revenue for all colleges and universities (Hollins, 1992). It is doubtful that any organization can survive for a protracted period of time without strong customer support. The demographic decline in quantity of entering first year students during the early 1990's has wreaked havoc with fiscal budgets in many institutions. This is especially true for those organizations who have not altered programming to reach a changing audience pursuing higher education.

Without students, educational services cannot be provided. Service is defined by the customer who receives outputs of organizational efforts (Sanders, 1995). The critical question is: Can altered programming and scheduling designed or demanded by today's adult students fit with current mission statements found at selected institutions of higher learning? Authors of this article believe the answer to this question is an unequivocal, "Yes!"

In support of this conclusion, mission statements from selected institutions of higher education were reviewed. It is interesting to note that all mission statements reviewed endorsed the development of academic methods which appeal to a variety of age-group populations while avoiding any reference to actual educational delivery systems.

For example, one mission statement reads:

> "...to respond within the range of its goals, to emerging educational needs, including the provision of opportunities for professional and life-long learning."

Another states:

> "...dedication to the development of those skills necessary for distinguished service in students' chosen careers."

A third published mission statement includes the following:

> "...a commitment to community with students and faculty, staff and administration which embodies caring, compassion, justice and integrity, competence and affirmation."

A fourth mission statement stated:

> "...to develop leadership and innovation..."

In conclusion, authors of this article believe that it is imperative that higher education continues to develop programming and delivery systems which respond to the needs of today's students who are by definition becoming more diverse. In spite of the conclusion that accelerated programs do complement institutional mission objectives, authors of this article continue to ask, "How can we encourage innovation if our organizations themselves do not model this needed ingredient in today's society?"

GOVERNANCE

If a college or university decides to develop its own accelerated program, rather than purchasing a "franchised" program, the institution encounters two significant challenges. First, expending the time, effort and expertise to develop a program from scratch and second, contending with the faculty in shepherding it through the governance system.

Most colleges and universities that offer a traditional curriculum are slow to change and byzantine governance systems can militate against change. However, if certain precautions are taken, the process can be facilitated. Higher education faculty have been trained to be critical so they will be instinctively suspicious of accelerated formats that reduce student/teacher contact hours and alter the traditional timelines for course scheduling. It is imperative, therefore, to anticipate these concerns and prepare rational responses. It is also important to obtain research evidence that supports your position. Another effective tactic is to identify a respected faculty member or two who will champion your cause among his/her colleagues. One must also be willing to revise the program to obtain faculty support. Once the program has made its way through the governance system and has been in effect for a few years, it is much easier to revisit these concessions to determine their appropriateness. Rigidity is a certain path to disaster.

One of the most effective ways of enlisting faculty support for accelerated formats is to demonstrate that similar programs have proven successful at institutions similar to your own and that there is a plethora of scholarly research that confirms the effectiveness of such programs. You can cite research indicating that weekly formats are viable alternatives to the daily format (Woodruff, 1995). One can also point to the 1991 study that reviewed 100 articles that addressed intensive course issues. This literature review comparing the achievement of students in intensive formats to the achievement of students in traditional formats found nonsignificant differences in learning outcomes. Overall, Scott and Conrad found, "relatively minor differences in student achievement based on type of format, even when the reviewed varying degrees of intensity" were studied. (Woodruff and Mollise, 1995).

In another study, Cashey (1994) found that students, especially adult students, did equally well in intensive quantitative courses as students taking the same courses in traditional formats. Academic performance was not found to be significantly adversely affected by using a variety of scheduling formats (Scott and Conrad, 1991).

You also need to point out to faculty that the use of an accelerated format mandates an interactive instructional method and is a way of encouraging reluctant professors to abandon the outmoded transmission instructional method that most instructors are still using. A college is an institution that exists to provide instruction. Subtly but profoundly, we are shifting to a new paradigm: a college is an institution that exists to produce learning (Barr and Tagg, 1995). Accelerated formats provide the opportunity for instructors to readily make such a paradigm shift.

Occasionally, you will find a faculty member who will disagree with the overwhelming evidence for the success of accelerated formats but will dispute whether this same success can be predicted in his/her particular academic discipline (e.g. philosophy). It is useful in these instances to obtain evidence from a respected colleague at another institution to support your position. For example, Robert J. Roth, S.J., a professor emeritus of philosophy at Fordham University, recently published his supportive views on adult education and accelerated formats in America magazine (Roth, 1996). It is difficult to dispute such first-hand testimonials.

Yet another approach is to appeal to the significant differences in mental development between the traditional learner and the adult learner. Because the adult learner is more likely to be at an advanced stage of development as compared to the traditionally-aged student, the accelerated format, with its stress on independent study, is more appropriate and more effective for the adult learner (Kegan, 1994).

In summary, as with a number of innovative recent trends in education (e.g. distance learning, whole language instruction, interactive instructional methods), accelerated programs and formats are being viewed with a great deal of skepticism by faculty at traditionally undergraduate institutions. However, if one is properly prepared, a compelling argument can be made for the efficacy of accelerated programs and formats.

CURRICULUM DEVELOPMENT

Curriculum development in accelerated degree programs for adult learners is most challenging, calling for a level of creative orchestration that is often not required in a traditional classroom. Whether a college purchases a franchised curriculum or develops one in-house, few of its faculty will have experience in other than the content based, teacher centered, lecture and test modality of the semester/quarter system where seat time and learning are closely allied. Furthermore, curriculum is often viewed as the province of faculty and change is often a slow and embattled process.

Enter the synergistic curriculum where learning is constantly evolving in ways that can't be foreseen by either students or teacher/facilitator; where the relation of people and task to environment creates enhanced learning whose immediate application is recycled back into the classroom matrix.

Adult learners enter the classroom directly from diverse work settings, family and community responsibilities. In the course of a typical four hour class they experience activities that take them through a learning cycle similar to Kolb's (1984) model of experiential learning, or what Mezirow (1996) calls the "emancipatory paradigm." Working in teams, students engage in case study analysis, problem solving, simulations and role plays interspersed with journal reflections and self-assessment inventories. Workplace application or "telling war stories" is a regular component of each assigned topic. Learning outcomes for each module provide the framework for the activities. For example, if a learning outcome is that the student will understand causes of organizational conflict and learn resolution strategies, appropriate literature is assigned; then a sequence of interactive experiences must be created such as a competitive game with special rules that will foster conflict in the participants. The game could then be followed by a whole class debriefing of what happened, followed by a training film or a small group sharing personal stories of mismanages conflicts and each participant is helped by the team to identify causes and devise new behaviors to try at home or work. The student is then expected to integrate the theoretical, the experiential, and the practical application in a formally structured paper.

Developing the sequence of modules that will constitute the program major is not unlike designing a traditional major except that the curriculum specialist would do well to be guided by this overarching question: what does an adult practitioner need to know in this content area in order to make sound decisions today? Such a focus question ensures that topics and assigned texts will be selectively intense and leave room for synergistic play of mind. Time management of the learning activities needs to be carefully planned. Sequencing of modules must have a clear rationale, yet allow for variation.

Finally, the curriculum must be au currant. Evaluative feedback from students and teachers is a valuable change agent. Every component of curriculum needs to be open to timely modification. In accelerated degree programs for adults, the curriculum belongs to the community of learners.

PROGRAM ASSESSMENT AND STUDENT OUTCOMES

Adult-centered accelerated degree programs need to be assessed differently from traditional undergraduate programs. The reasons for this are obvious to those involved with these programs but often foreign to those who deal only with traditional university models.

The quality and effectiveness of such programs cannot be measured in seat time, traditional testing methods or other forms of conventional student assessment, but rather must focus on student outcomes. Often these outcomes are in themselves nontraditional, focusing on improved performance in the work place as evidenced by job promotion, salary increase and increased employee motivation. It has been determined that students in these programs do as well as adult students from traditional programs on standardized tests for graduate school admissions.

There is still a need for in-depth research on accelerated degree student outcomes which given the relatively short life span of these programs in not surprising. As further data is compiled on student outcomes it is important to focus on the high degree of student motivation, including direct financial rewards, which effects this population.

Program assessment, likewise, cannot focus on number of contact hours or what an institution deems appropriate for a student to know. The measurement of success for accelerated programs needs to take into account the student perspective as evidenced in such variables as student satisfaction, quality of instruction and relevance to the workplace.

Accelerated programs need to continually focus on the student perspective if they are to be successful and to meet the needs of both the adult learner and the institution. Assessment measurement tools need to focus on what benefits students and what enables real learning to take place, not just on what the institution believes a student needs to know.

MARKETING ALTERNATIVE DELIVERY PROGRAMS

Marketing to an audience of professional adults requires implementation of strategies that will reach the designated audiences. For many institutions this is a departure from the traditional program marketing through view books, videos, and direct mail. Most adults relate to radio and television rather than news print (LERN, 1994). These large ticket advertising media cause institutional apoplexy until a bottom-line return for dollar can be proven.

Two marketing principles are critical to institutional image building and student recruitment. Marketing is everything you do and yet it is distinct from advertising and public relations (Simerly et al, 1989). Taking a risk to find new markets is often rewarding. Building a marketing study based on feasibility studies, focus groups, and tracking the advertising that works for your institution can provide important results. Marketing refers to the overall process of studying, analyzing, and making decisions about the best delivery of continuing education services to the consumer.

The adaptive model of marketing continuing education programs most applies to the consumer orientation of accelerated degree programs. This model is demonstrated when the organization changes its programs, products, and services to fit the changing needs, wants, and desires of consumers. The advantages of the adaptive model are consumer satisfaction, organization assessment of renewal and adaptation, and change. The disadvantages include deviations from the organizational traditions and norms, alienation of traditional groups within the organization, and accusations of abandoning traditional standards. (Simerly et al, 1989). Organizations who resist change and value the status quo are more inclined to the traditional or exchange methods of marketing continuing education. A comprehensive marketing plan for continuing education needs to address image, competitive positioning, and championing the cause. A consulting agency advises that if you do not differentiate your product from the competition, then students will differentiate you on price (Sevier, p.5).

The most successful programs are those which offer creative solutions to adult student concerns: convenient location, flexibility, affordability, scheduling, and quality. Once the initiatives are designed, they must be made visible. We know that the target market audience can be found among the baby boomers as well as the busters -- each group having demonstrated different socializations, attitudes, goals. Reaching these people requires different tools: print media, radio, TV, representative marketing at College/Career Fairs, low cost publications (flyers, posters, postcard, newspaper inserts). Connections need to be made through professional organization newsletters, church bulletins, the electronic superhighway, telecommunication conveniences, direct mail suppliers. Advertising in a way that is both new to your organization (expand the image) and a risk to reach new markets can bring definite results. Spending the same (or fewer) dollars in the same way year after year may insure maintenance but will not promote growth. Get your name in unusual places -- on mass transport, on billboards, in highly traveled areas through which local as well as commuter populations pass.

Marketing accelerated degree programs to the boomers, busters, and Xers is a challenge. Anyone in these generational life stages can attend part-time degree programs. Most are looking to do it quickly -- to enhance life; to attain career goals; to get it over with; to get ready for the next degree. Understanding the demographics is critical in developing a strategy. Local demographics are more important to the issues of convenience, scheduling, and affordability than other data.

CONCLUSION

The competitive market in the Greater Philadelphia area has created an atmosphere of excitement for prospective students, heightened awareness of existing programs for accelerated degree administrators, and fostered a sense of collaboration as we work to identify the market niche for each of the programs. The bottom line of choice can be as simple as the distance of the program from work or home. As this population grows, the specializations of each program will become increasingly important.

REFERENCES

Bar, Robert and Tagg, John. (1995, November). From teaching to learning, Change, 13.

Boyer, E. L. (1990). Scholarship reconsidered: priorities of professoriate. Princeton, NJ: The Carnegie Foundation.

Conrad, Judi. (1993, September). Educating part-time adult learners in transition. ERIC, 360-946.

Eurich, N. P. (1990). The learning industry: education for adult workers. Princeton, NJ: The Carnegie Foundation.

Frye, B. J. (1994). Teaching in college: a resource for college teachers. Cleveland, OH: Info-Tec.

Hollins, C. S. (1992). Where do we go from here? In C. S. Hollins New directions for institutional research: containing costs and improving productivity in higher education. (115-119). San Francisco: Jossey-Bass.

Kegan, Robert, (1994). In over our heads, Cambridge, MA: Harvard University Press, 271-175.

Kolb, D. (1984). Experiential learning. New Jersey: Prentice Hall.

Learning Resources Network (1994). Report #1E40.

Mezirow, Jack. (1996). Contemporary paradigms of learning. Adult Education.

Roth, Robert, (1996, January 13). Evening college and greater things, America, 174(1) 9.

Sanders, B. (1995). Fabled service: ordinary acts, extraordinary outcomes. San Diego, CA: Pfeiffer.

Sevier, Robert A. Those important things: what every college president needs to know about marketing and recruiting. [white paper: no. 2]. Cedar Rapids, IO: Stamats Communications, Inc.

Woodruff, J. C. (1995). Course performance of students in weekly and daily formats, Journal of Continuing Higher Education, 43(3), 10-15.

Willimon, W. H. and Naylor, T. H. (1995). The abandoned generation: rethinking higher education. Grand Rapids MI: Eerdmans.

Kathleen Rex Anderson, Ed.D.
Associate Dean/Director
Chestnut Hill College ACCELERATED
9601 Germantown Ave.
Philadelphia, PA 19118-2693

Honour Moore, M.A.
Director, Accelerated Degree and
Continuing Studies Program
Rosemont College
1400 Montgomery Avenue
Rosemont, PA 19010-1699

Valerie Ward Hollis, Ph.D.
Director, Accelerated Degree Programs
Cabrini College

Robert Palestini, Ed.D.
Dean of Graduate Arts and Sciences
and University College

610 King of Prussia Road
Radnor, PA 19087-3698

St. Joseph's University
5600 City Line Avenue
Philadelphia, PA 19131-1395

Alan Lisk, M.S.
(Former Executive Director
Eastern College Degree Completion Program)
56 Main Street
Wayne, PA 19087

Presented at the Eastern Adult, Continuing and Distance Education Research Conference, Penn State University, University Park, PA, October 24-26, 1996.

BASIC SKILLS IN THE WORKPLACE: A FRAMEWORK FOR ESTABLISHING SKILL STANDARDS

Eunice N. Askov

ABSTRACT

The researcher, as the first Literacy Leader Fellow at the National Institute for Literacy, developed a framework for identifying basic skills needed for the workplace using the curricula developed as part of the US Department of Education's National Workplace Literacy Program. A report from the National Institute for Literacy summarizes the presenter's study in addition to a summary of .the skill standards initiative and related policy efforts.

The framework for basic skills in the workplace provides guidance not only to businesses and industries that are restructuring to adopt practices of high performance work organizations but also to workplace/workforce literacy service providers in their curriculum development efforts since it includes the basic skills needed for the restructured workplace. It also provides a useful framework for researchers who are interested in studying basic skills in the workplace.

INTRODUCTION

Skill standards define what workers should know and be able to do to be effective workers. They provide the common framework between job requirements and education and training (whether preparatory or continuous learning at the work site), with possibly further definition through certification. Skill standards are an attempt to define the specific skills needed for occupational clusters which also, in effect, define outcomes of good instruction. By defining outcomes, educators and trainers can plan instruction so that it leads to the achievement of those outcomes. Skill standards also help learners see what they need to know and be able to do as they participate in various levels of adult education programs. If certification is tied to accomplishment of skill standards, then students have certified portable skills that they can take anywhere in the country. Employers can set job expectations for new or advancing employees based on the skills standards certificates. The skill standards movement is being driven by business with governmental support. The goal is to create a workforce that can function in a high performance work environment. The concern is that the current workforce lacks the necessary skills and that schools are not educating students for the restructured workplace (National Alliance of Business, 1995).

Adult educators working in workplace literacy and workforce preparation programs need to be aware of the many efforts to define standards for the knowledge, skills, and abilities needed for successful performance in the workplace. Similarly, business and union decision makers also need to be aware of the efforts within the education community to establish standards. The Literacy Leader Fellowship research project at the National Institute for Literacy addressed these needs by two activities: (1) Describing the various efforts related to skill standards and other policy initiatives for those who may not be directly involved in these ongoing efforts; (2) Writing skill descriptions as the framework for workplace literacy skill standards, especially for those basic skills needed for work in high performance work organizations (HPWOs; see Haiger & Stein, 1994).

BODY OF PAPER

During the fellowship period, extending from October 1994 through September 1995, for a total of 12 contracted weeks, the efforts resulting from the changing business environment were reviewed as part of the first activity of the fellowship. As many companies strive to adopt the practices of HPWOs, the skills needed for successful employment are also changing. The 22 skill standards projects, funded by the U.S. Departments of Labor and Education (*Occupational skill standards projects*, 1994), are attempting to define the occupational content and performance levels needed within and across industries.

Also funded by the U.S. Departments of Labor and Education, the National Job Analysis Study (American College Testing, 1994) is identifying cross-occupation workplace skills necessary for worker and business success particularly in HPWOs. The result will be a scientifically determined set of general or core skills that every worker needs, regardless of occupation and job tenure level, in order to work in the HPWO environment.

Concurrent with these efforts, the U.S. Department of Labor is funding an ambitious effort to replace the *Dictionary of Occupational Titles* using the framework established by SCANS (U.S. Department of Labor, Secretary's Commission on Achieving Necessary Skills, 1991). The Occupational Information Network (O*NET, U.S. Department of Labor, 1995)) is a huge electronic database of occupational information that provides a common language and framework and that can be accessed directly by the end user. O*NET will be useful not only for employers in hiring but also for workers and educators who need to know the skills and education required for various occupations.

The creation of the National Education Goals (National Education Goals Panel., 1994) has led to a number of initiatives, including community efforts to set high expectations for all learners, build an accountability system, and set performance checkpoints, as well as formal assessments using the National Adult Literacy Survey and its derivative. The National Institute for Literacy engaged in a joint effort with the National Education Goals Panel to further define the adult literacy goal in terms of learners' perceptions of the knowledge and skills that they need (Stein, 1995).

For the second fellowship activity, the researcher performed curriculum analyses of the curricula created as part of the National Workplace Literacy Program (U.S. Department of Education,. 1994) to determine the basic skills most needed for the workplace. She established criteria for acceptance of the curricula into the study; then, she screened the

NWLP curricula for those characteristics deemed to represent good approaches to workplace literacy instruction as defined by the U.S. Department of Education guidelines.

The survey of NWLP curricula resulted in 208 basic skills entries in a *Filemaker Pro* database. These represented 45 sources, mostly educational providers, that created curricula with NWLP funding between 1990-94. Of the occupations analyzed, 103 jobs were from the manufacturing sector; 34 from healthcare; and 71 were categorized as "other", which may be other occupations or unspecified occupations. This sampling of the NWLP curricula was small, greatly constrained by the length of the Literacy Leader Fellowship period (12 weeks).

The categories of the Occupational Information Network (O*NET) were used as the framework for coding the basic skills. The literacy skills of the sample NWLP curricula included the following basic skills categories with the number of occurrences:

Reading Comprehension	41
Writing	38
Oral Communication	35
Quantitative	38
Problem Solving	23
Critical Thinking	15
Knowing How to Learn	5
Cross-Functional Skills[1]	9

These numbers are distorted by the fact that general skills lists such as CASAS (Comprehensive Adult Student Assessment System, 1989) were entered into the database only once. More than ten percent of the programs in the sample actually used the CASAS framework as the basis for organizing the basic skills in the workplace. Since most of the curricula did not state which CASAS skills were identified, multiple entries were not made in the database. Therefore, CASAS skills actually occurred more often in the NWLP curricula than are noted above.

It was originally hoped that unique skills could be identified for various occupational clusters from the NWLP curricula. This effort proved to be impossible since many providers worked with several industries, not necessarily of the same occupational cluster, within a given community.

The investigator had hoped to identify and use only high performance work organizations (HPWOs) as the sample from the NWLP curricula. However, it was difficult to tell from the information provided in the final NWLP reports about their work restructuring efforts. Unless a company was clearly HPWO, as in 13 of the entries, or clearly not a HPWO, as in 51 of the entries, it was coded as "mixed" which meant that the company was moving toward becoming a HPWO or its status was unknown or unspecified in the NWLP curricula or final report.

---

[1] Includes the 36 cross-functional skills defined in the O*NET.

NWLP curricula focused on literacy skills at various levels of specificity, ranging from curricula built around job-specific literacy skills to general workplace literacy skills. The sample of NWLP curricula for this study included 108 entries that were job-specific, 56 that were specific to the company, 45 specific to the industry, and 39 related to general workplace skills. (Numbers do not total to 208 entries since some curricula were focused at more than one level.)

CONCLUSIONS

Review of the NWLP curricula revealed that most of the instructional efforts are focused on the more traditional basic skills probably due to initial emphasis of the federal program. More recently, the NWLP curricula have been including higher order skills, such as critical thinking and problem solving. O*NET proved to be a useful framework for categorizing the workplace literacy skills. It is comparable to other frameworks that are commonly used for assessment and instruction in workplace literacy.

Since the selected NWLP curricula were developed from literacy task analyses of many diverse workplaces, it is informative to know what basic skills appear frequently in the workplace literacy curricula. If the same basic skills are taught, even if in contextually different work settings, these skills should have priority for instruction. These skill descriptions provide a starting point for adult educators as they analyze the specific needs of the workplace as part of program planning. The framework for basic skills standards provided in this paper should be tested and reviewed by those involved in delivering workplace literacy and workforce preparation programs.

REFERENCES

rican College Testing (ACT). (1994). *Performing a National Job Analysis Study: Overview of methodology and procedures*. Iowa City, IA: Author.

prehensive Adult Student Assessment System (CASAS). (1989). *Employability competency system: An assessment and curriculum management system for JTPA programs*. San Diego, CA: San Diego Community College District Foundation.

ger, K.O., & Stein, S.G. (1994). *Workplace literacy training in modernizing manufacturing environments.* Washington, DC: National Governors' Association, Training and Employment Program, Center for Policy Research.

ional Alliance of Business. (1995). *Skill standards; report to the nation: Business perspectives on voluntary skill standards*. Washington, DC: Author.

ional Education Goals Panel. (1994). *The National Education Goals Report; building a nation of learners*. Washington, DC: U.S. Government Printing Office, Superintendent of Documents.

upational skill standards projects. (1994). Washington, DC: U.S. Departments of Education and Labor.

in, S.G. (1995). *Equipped for the Future: A Customer-Driven Vision for Adult Literacy and Life-Long Learning.* Washington, DC: National Institute for Literacy.

. Department of Education. (1994). National Workplace Literacy Program; Final regulations and notice. Washington, DC: Author.

. Department of Labor. (1995). *O*NET project summary (draft).* Washington, DC: Author, Office of Policy and Research.

. Department of Labor, Secretary's Commission on Achieving Necessary Skills. (1991). *What work requires of schools: A SCANS report for America 2000.* Washington, DC: Author, Employment and Training Administration.

....

Eunice N. Askov
Professor of Education
Director, Institute for the
Study of Adult Literacy
Penn State University
102 Rackley Building
University Park, PA 16802-3202

Presented at the Eastern Adult, Continuing and Distance Education Conference, Penn State University, University Park, PA, October 24-26, 1996.

BREAKING ALL THE RULES:
READING ANGELOU, MORRISON, CROW DOG
AND THE LIVES OF PRISON WOMEN

Irene C. Baird

ABSTRACT

Conventional wisdom prescribes "life skills" for incarcerated women as practical learning and preparation for reentry into society. Stereotyped categorically as illiterate, in those institutions where rehabilitative services are available, the women are offered ABE/GED studies as the solution to their needs. This ongoing study reframes the problem; using a humanities-oriented model, it encourages marginalized women to speak with their own voices. The objective of the model is to promote critical thinking on issues of self and society, with established female authors of similar race, class and experience serving as the link. The learners discuss the readings for meaning and understanding; their reflection on the content is evident in the subject matter of their subsequent writing. Finally, they self-select examples of the personal stories they choose to include in a publication of their writing: in their own words *they* tell how they construct their worlds. In addition, through this medium this specific population of marginalized women provides information on the meaning and manner of learning which they define as "real" practical learning and knowledge.

INTRODUCTION

With dramatically increasing numbers of incarcerated women, not only is there a lack of literature regarding their learning perspectives and needs, especially as preparation for release from prison, but sparse information on programs that effectively address their issues. The women's diversity, in terms of race, ethnicity and class, adds to the dilemma on another dimension. With reference to multiculturalism, there are studies such as Tesconi's (1990) on its meaning and Ross-Gordon's (1991) on the importance and necessity for inclusively in adult education research and practice.

With few exceptions, however, there is little in the literature concerning the meaning and manner of leaning of marginalized women, of whom incarcerated women are a segment. Existing studies, such as Belenky's et al (1986) and Gilligan's (1982), do address women's ways of acquiring knowledge and a voice, but here again the participants are predominantly white, middle class. Other studies focus on basic adult literacy (Fingeret, 1982, 1984), workplace preparation (Baird, 1991, 1994; Gowen, 1992), and working women's learning perspectives, contrasting African-and Anglo-American women (Luttrell, 1989, 1993). Luttrell (1993) underscores the paucity of research on these underrepresented women, their programs and classrooms, stating that often and erroneously low income or marginality is equated with low learning skills and/or illiteracy.

Newman, Lewis and Beverstock (1993, 1994) pinpoint prison literacy in their studies on programming and assessment; however, the primary focus is the female population. They do, however recommend for both genders the use of a humanities model as part of the rehabilitative (as opposed to punitive) process to promote critical thinking on issues of self and society. This recommendation reinforced the implementation of a humanities model, a pilot project for homeless women, as a mechanism for both exploring the meaning and manner of learning of incarcerated females and, breaking all the rules, for using this nontraditional approach for helping them solve real-life traumas (Baird, 1994).

BREAKING ALL THE RULES

A HUMANITIES-ORIENTED MODEL

As a pilot project, the humanities learning model for marginalized women was tested in 1992 with a group of homeless women. For eight weeks this project replaced one and one-half hours of mandated weekly sessions that focused on such "life skills" training as financial management, parenting skills, job readiness preparation. Arrangements were made to meet with the women ahead of time to introduce the humanities concept and invite their participation. They were told they would read from established female authors of similar race, class and experience and then discuss the reading for meaning-making. The objective in this project was to address minimal or non-existent self-esteem. Creative self-expression, in a form of their choice, was intended as a medium for reinforcing the reflection for solving their problems. There was no pre - or post - testing. Examples of their writing, incorporated in a booklet they named, completed the process. Their works and their heightened sense of self at the completion of the project served as an evaluative tool. This was termed a paradox in learning since it effectively engaged the learners in a process contrary to how society defined these women's learning needs (Baird, 1994).

For the past two years, as ongoing research, the model is being implemented with other groups of marginalized women, specifically prison inmates, parolees ad probationers. Four cycles and lasting ten weeks for one and one-half hours each week, take place at a prison site and at a program for parolees and probationers. Unlike the homeless women, the incarcerated women are volunteers to the program. For the parolees and probationers participation is mandated as part of the rehabilitative process. The basic model prevails at both locations, namely to engage the women in reflecting on themselves and their communities, using female authors as the link. Although the reading material and writing change according to the learner's preferences, Maya Angelou's short poem on failed relationships has a message to which all these learners react irrespective of their race, ethnicity or socioeconomic background. Equally engaging are the works of Native American writers who share their struggles with oppression and Japanese American women whose families endured the humiliation and deprivation generated by internment during World War II. The highlight of the program, however, at the culmination of the project is in seeing in print and reading their own stories, in their own publication.

Oral history has been defined as "both process and product, a recovery of information - 'accounts' - as well as interpretations of the past, and it is necessary involves subjective issues of meaning - what's significant to whom - and of memory - who remembers what (Shopes, 1993)." The incarcerated women, parolees and probationers, to date, have been selective in their use of memory, in both recovering information and in interpreting it. Examples of their recollections include early family interaction, the minutiae that they considered normal "give and take" of an intact family; the desire for an idyllic life where "good" prevails; graphic accounts of abuse, victimization, tempered with occasional acts of kindness; conflict and tension associated with family travels, presented through a humorous lens. For these women, these stories serve as a mechanism for resolving real-life crises both by associating with the experiences of women authors and by revisiting their own past. These stories also are part of an ongoing project to explore the meaning and manner of learning of marginalized women: for this population meaning is defined as growth an understanding; manner means doing, that is, a hands-on approach. This project also gives depth, dimension and personal identity, through adult education, to a group of women viewed as prison numbers and alarming statistics.

CONCLUSION

To date, this study has found that::

- marginalized women are not categorically illiterate. Even the non-readers and non-writers are able to engage in the learning process by listening, discussing and dictating their stories;

  - marginalized women are capable of sophisticated interpretations of the reading. Since each woman is encouraged to respond according to her own experiences and insights, she finds that her voice is important. Each one also learns from the perspectives of the others which adds another learning dimension;
  - marginalized women tend to select how an how much they will share of their personal stories. For some it is an honest re-living of experiences; for others the story is told as fantasy, as escapism;
  - marginalized women engage in the process, even when mandated, when they are interested, have input in the agenda and feel the project will help them.

- There continuance of this research benefits both theoretical and practical concerns of adult education. It provides insights into how marginalized women - a significant segment of our population - use a humanities-based, oral history-enhanced model to construct practical knowledge, namely about themselves. Since so little is known about these adult learners, this study also encourages testing the model with other groups of women of similar race and socioeconomic status. For practitioners, this study provides a different approach to engaging these learners in a non-threatening but challenging format.

REFERENCES

Baird, I.C. (1991). *How some low income women view learning as they prepare for the workforce: A comparative case study.* (ERIC Document Reproduction Service No. ED 3485320).

Baird, I.C. (1994). The humanities for homeless women: A paradox in learning. *Adult Learning.* 5 (3) 13, 15.

Baird, I.C. (1994). *Learning to earn "the right way": Single welfare mothers in mandated education.* Unpublished doctoral dissertation, The Pennsylvania State University, University Park, Pennsylvania.

Baird, I.C. (1994). School learning and common sense: A learning dichotomy for single welfare mothers in welfare-to-work programs with mandated education. In Dean, G. & Ferro, T. (Eds.) *Proceedings of the Pennsylvania Adult and Continuing Education Research Conference* (pp 45-48). Monroeville, PA.

Belenky, M., Clinchy, B., Goldberger, N. & Tarule, J. (1986). *Women's Ways of Knowing.* Basic Books, Division of Harper Collins.

Fingeret, A., (1983). Common sense and book learning: Culture Clash? *Lifelong Learning: The Adult Years,* 6 (8) 22-24.

Fingeret, A., (1984). *Adult Literary Education: Current and Future Directions.* (Report No. CE 039454). Washington, DC: National Institute of Education. (ERIC Document Reproduction Service No. ED 246 308).

Gilligan, C., (1982). *In a Different Voice.* Cambridge, MA: Harvard University Press.

Gowen, S., (1992). *The politics of Workplace Literacy.* New York: Teacher's College, Columbia University.

Luttrell, W. (1989). Working class women's ways of knowing: Effects of gender, race and class. *Sociology of Education*, 62, 34-36.

Luttrell, W. (1993, Spring). The teachers, they all had their pets: Concepts of gender, knowledge and power. *Signs*, 18, (3), 505-544.

Newman, A., Lewis, W. and Beverstock, C. (1993). *Prison Literacy: Implication for Program and Assessment.* Bloomington, Indiana: Indiana University (Technical Report TR 93-01) CO published with ERIC Clearinghouse on Reading and Communication Skills.

Newman, A., Lewis, W. and Beverstock, C. (1994). Prison Literacy: Implication for Program and Assessment. *Connections.* 1, 7, 8.

Ross-Gordon, J. (1991, Fall). Needed adult education research for the twenty-first century: Toward a multicultural perspective. *Adult Education Quarterly.*

Shopes, L. (1993) Oral History in Pennsylvania: A historiograpic overview. *Pennsylvania History.* 60 (1), 430-454.

Tesconi, C., Jr. (1990). Multiculturism in education: The importance of meaning. In B. Cassara (Ed.), *Adult Education in a Multicultural Society* (pp. 28-44), New York: Routledge.

Irene C. Baird, D.Ed., Director,
Women's Enrichment Center, The Pennsylvania State University, Eastgate Center,
1010 North Seventh Street, Harrisburg, PA 17102-1410.
Presented at the Eastern Adult, Continuing and Distance Education Research
Conference, Penn State University, University Park, PA October 24-26, 1996.

DATA MINING FOR FACTORS AFFECTING THE IMPLEMENTATION OF INTERACTIVE, COMPUTER-MEDIATED INSTRUCTIONAL TECHNIQUES FOR STUDENTS AT A DISTANCE

Cheryl L. Bielema

ABSTRACT

Human-assisted data mining became the process of manipulating data from the archived electronic postings of adult students, enrolled in a graduate extramural course at the University of Illinois. Gaining Internet access from remote areas of the state and learning to use specific electronic tools were facilitated by e-mail to the professor and extramural programs staff. The specific barriers encountered included the above technical aspects, but also involved a mismatch between personal learning preferences and the selected instructional techniques, and the lack of structure necessary for self-directed learning to occur. Missing institutional policies and procedures prevented the "learner-interface interaction" from being more transparent and easy to accomplish. Also identified were additional variables that might have provided more definitive differences among electronic activity for students seeking to utilize computer-mediated communications in formal courses.

PROBLEM

Distance instruction differs contextually from face to face classroom instruction in that the instruction is "mediated by technology which often limits the form, frequency, and immediacy of messages" (Garrison, 1989, p. 227). It also opens the possibilities for new ways of interacting and for increasing the frequencies of interaction among students and between students and the instructor. The specific contexts of students' location, individual computer experience, and primary computer used in required course electronic activities are a ripe area for in-depth research.

The research literature in on-line instruction is heavily qualitative, descriptions of techniques and outcomes, impressions of teachers and students, social interactions and learning style analysis (Smith & Taylor, 1995; Gunawardena & Boverie, 1992). Various analytical techniques have traced intermessage referencing, message acts, termed "IRE sequences" by Mehan (as cited in Levin, Kim, & Riel, 1989), and message flow analysis (Levin, Kim & Riel). Message analysis is key to understanding the factors affecting implementation of interactive, computer-mediated instructional techniques.

DATA COLLECTION METHODS AND MEASUREMENT

The research study was a case study of two extramural graduate courses offered via the audiographics technology, fall semester, 1995, University of Illinois. It combined both qualitative data, observations, interviews and survey instrument, and quantitative data consisting of all electronic mail activity posted to professor, course newsgroup and mailing group, coded via data base structure.

The participants of the study consisted of the two instructors and 48 students enrolled in the Extramural graduate courses Library and Information Sciences (LIS), n=32, and Agriculture Soils, n=16. Groups of two to ten students were located at seven remote teaching sites. The LIS course required that students have access to the Internet and log into the class computing resources at least twice a week, while the Soils course offered "connectivity" as an optional activity. An electronic consultant was available to work with each professor in developing specific electronic instructional techniques. In order to offer students two different means of computer-mediated communication, a course newsgroup or home page and a listserv mailing group were set up for each class.

Data were collected using in-depth interviews of selected students, the instructors, electronic consultants, and Extramural Programs' administrators. Remote classroom observations and document analysis were also part of the research methodology. Newsgroup and electronic mail activity was coded and sorted by content, sender, receiver(s), date and time, for analysis. A *Survey of Equipment and Methods to Access the Internet* yielded computer specifications for the primary computer used to access the Internet as well as a self assessment of computer skill by individual students.

RESULTS

The students enrolled in Soils course did not use the electronic communications set up for them. Their electronic activity was focused in a computer laboratory session introducing the World Wide Web through a Soils Home Page. Data base indexes and sorts compared the LIS students on a number of variables. Initial indexes detailed global electronic activity. For example, there were 931 separate records entered in the data base. There were 608 e-mail messages posted to the LIS professor; 48 postings to course listserv and 116 postings to the course newsgroup. Multiple messages within postings accounted for 136 additional records. Content categories were determined from analysis of the first six weeks of messaging. The categories were defined as: Institutional (questions related to syllabus, computer lab, and attendence); New (new, unusual ideas related to electronic use); Personal (personal/family characteristics, computer experience, learning styles and emotions); Subject Matter (assignments, questions, analysis and reflection); Technical (hardware/software problems, connectivity issues, electronic tools usability); and, Benefits (personal growth, successes).

Indexed by content categories, subject matter questions and posting of assignments was the most frequent type at 44.8 percent. Considering issues or "barriers," as a group (50.4 percent), technical issues were second in frequency, comprising 28.5 percent of the total. Institutional issues accounted for 9.8 percent; personal, family, or work characteristics comprised 12.1 percent. Expressed benefits or successes, final category by which messages were coded, totaled 4.1 percent.

From there, data mining began. Data mining is being used to describe human-assisted sorting and grouping of data, as opposed to machine-only processes. Students were compared by location, on campus or off campus, and by their level of computer experience. The semester was divided into three time periods to assess any differences in categories and numbers of messages, as well.

E-MAIL AND TIME IN SEMESTER

Attempting to answer the question of what barriers affected students throughout the semester, time periods were established to mark the beginning, middle, and end of the semester. The electronic mail transmissions stretched almost two weeks beyond the last session of the LIS course. In fact, 69 e-mails were posted between December 8, 1995, and December 20, 1995, which was the official end of the fall semester.

In the first third of the semester (August 25 - October 5), nearly half, 46 percent, of the electronic messages occurred, (n=431). During the middle of the semester (October 6 - November 16), 38 percent (n=353) of the e-mail activities occurred, while only 16 percent (n=148) of the electronic activities took place in the final third of the semester (November 17 - December 20, 1995).

Table 1
Student Initiated Electronic Messages by Time Period, Student Location and Category
Beginning: August 25 - October 5, 1995 - 46.3 Percent

Categories of E-Mail	On-Campus No./%		Off-Campus No./%	
Institutional	n= 5	05.4	n=11	07.7
Personal	n= 5	05.4	n=13	09.1
Subject Matter	n=54	58.7	n=45	31.5
Subject Matter Questions	n= 6	06.5	n= 6	04.2
Technical	n=22	23.9	n=68	47.5
TOTAL	92		143	

Middle: October 6 - November 16, 1995- 37.9 Percent

Institutional	n= 3	02.9	n= 6	04.9
Personal	n=22	21.6	n=20	16.4
Subject Matter	n=47	46.1	n=43	35.2
Subject Matter Questions	n= 5	04.9	n=17	13.9
Technical	n=24	23.5	n=33	27.0
TOTAL	102		122	

End: November 17 - December 20, 1995 - 15.9 Percent

Institutional	n= 2	05.9	n= 7	17.5
Personal	n= 7	20.6	n= 7	17.5
Subject Matter	n= 21	61.7	n= 7	17.5
Subject Matter Questions	n= 1	02.9	n= 8	20.0
Technical	n= 3	08.8	n=11	27.5
TOTAL	34		40	

Student-initiated electronic messages were compared by on-campus and off-campus locations and by time in the semester. There were important differences in both numbers and content of message. In the first third of the semester, almost half of the postings occurred. Technical postings for on-campus students accounted for 24 percent of the total, contrasted with 48 percent for those students located off campus. A second major difference was noted in subject matter postings, including assignment postings: 59 percent of the messages were subject-matter oriented for on-campus, compared to 32 percent for off-campus students.

In mid-semester, e-mail comprised 38 percent of the total. Subject matter-oriented postings accounted for the largest percentages for both groups: On-campus students posted 46 percent, while off-campus students posted "subject matter" 35 percent of the time. Technically-oriented messages comprised 24 percent of the total e-mail for on-campus students, and 27 percent of total e-mail of those off campus. Personal statements, including statements of CMC benefits, accounted for 22 percent of the total, by the on-campus cohort, while the share was 16 percent.

The final third of the semester saw a drastic drop in e-mail activity, comprising 16 percent. Subject matter and assignment postings accounted for a majority of messages for those on campus, while technically-oriented e-mail remained consistent for off-campus postings. An most important conclusion was that the institution might anticipate that most technical problems and issues would surface in the first third of the semester. That might be the optimal time to provide orientation activities, software use learning aids and "help desk" support.

DATA MINING WITH STUDENT CHARACTERISTICS

A question soon occurred to the researchers. What are the particular characteristics that might group students in terms of message attributes and electronic activity? It was expected that activity level and number of category responses varied. The researchers began looking for the student characteristics that logically grouped them by content and activity level. Data mining centered on the 21 identified students who had completed the *Survey of Internet Access*. Sorts were done for their combination of characteristics: location, on or off campus; level of computer skill, beginning or intermediate; and primary computer used for Internet access, home, office or computer laboratory. While the researchers concentrated on the differences, there were similarities between and among the groups.

SELF-ASSESSED COMPUTER EXPERIENCE

In a self assessment of computer experience, there were 8 beginners off campus; 4 beginners on campus; 6 intermediate-skilled, off campus; and, 3 on campus, identified as the group of students involved in the data mining process.

Table 2
Student Initiated Messages by Location and Computer Experience

Student Attributes	No.	Messages/Ave		N	P	S	T	U
Off Campus, Beginner	8	134	16.8	.4	2.0	7.1	6.0	1.2
Off Campus, Intermed.	6	167	27.8	--	4.0	11.3	10.0	2.3
On Campus, Beginner	4	53	13.3	.5	3.3	6.8	2.3	.5
On Campus, Intermed.	3	43	14.3	--	2.0	10.0	1.7	.7

Note. Message categories N = New, emerging barriers; P = personal barriers; S = subject matter and assignment postings; T = technical barriers; U = institutional barriers.

In a data record sort to compare the electronic activity among beginning and intermediate skilled students and those located on campus and off campus, 7 of the 18 on-campus students and all 14 of the off-campus students were included because their surveys were identified by name.

Off-campus students, with either beginning or intermediate computer skill levels, generated more "original" e-mail messages than did the on-campus sample of students: Beginner, Off-Campus n=134, averaging 16.7 per student; Intermediate, Off-Campus n=167, 27.8 per student; Beginner, On-Campus n= 53, or 13.3 per student; and, Intermediate, On-Campus n=43, averaging 14.3 per student.

Technical barriers were the majority subject for e-mail with an average of six postings generated by beginners in the off-campus cohort, and an average of ten postings by the intermediate skilled, off-campus cohort. In comparison, beginners', on campus, only posted 2.3 questions per student sampled, while intermediate skill level, on-campus students posted an average of 1.7.

Another striking area of differences with electronic messages was in subject matter. The intermediate-skill level students, both on and off campus, posted higher numbers of subject matter-oriented messages – 10 and 11.3 per student, respectively, than the beginning skill level students. The messages per student at beginning-skill level, for on and off campus students, were 6.8 and 7.1, respectively.

E-MAIL ACTIVITY BY LOCATION AND PRIMARY COMPUTER

A comparison of electronic mail "originator" messages was done, based on the primary computer utilized and by on-campus and off-campus locations.

Table 3
Summary of Student Messages by Location and Primary Computer

Location	Computer	No. Students	Total Messages	Messages/Student
On Campus	Home	4	64	16.0
OffCampus	Home	8	134	16.8
On Campus	Office	2	20	10.0
OffCampus	Office	6	167	27.8
On Campus	Lab.	1	12	12.0

In comparing electronic messages by the primary computer used, on-campus and off -campus students utilizing their home computers were similar, with 16 and 16.8, respectively. There was only one student identified in this purposive sample using a campus computer lab, and his e-mail numbered 12 messages. The most active e-mail generators appeared to be the off-campus students using an office computer. They averaged 27.8 messages, as compared to the on-campus students, using an office computer, for an average of 10 messages per student. That represented almost a 300 percent difference in electronic mail activity.

PERMUTATIONS AND COMBINATIONS OF MESSAGES

The two categories of messages that were examined in greater depth because of higher overall counts were Assignments (S1&3), subject matter-related questions (S2); and, Technical categories, hardware/software (T1), connectivity and student accounts (T2&3), usability of electronic tools (T4), and selection/purchase (T5).

After delving into these differences among off-campus groupings only, the investigation turned again to all students separated into distinct groupings. The differences are summarized in Table 4.

Table 4
Message Categories Among Selected Students

Students	No.	S1&3	S2	T1	T2&3	T4	T5
On/H/B	2	6.	.2	1.5	-	2.5	-
On/H/I	2	9.	2.5	.5	1.	.5	-
On/O/B	1	6.	-	-	-	2.	-
On/O/I	1	7.	-	1.	-	-	-
On/L/B	1	6.	2.	-	-	-	-
Of/H/B	4	4.8	.5	1.2	2.	2.	-
Of/H/I	4	7.2	2.8	.2	1.5	3.5	1.
Of/O/B	4	8.2	3.8	.5	.8	8.5	-
Of/O/I	2	6.5	2.	.5	2.	9.	-

Note. On = on campus; Of = off campus; H = home computer; O = office computer; L = computer lab.; B = beginning skill level; I = intermediate skill level

Among subject matter assignment categories (S1&S3), the highest number was posted by on-campus intermediate students, using home computers, n=9. Close behind were the off-campus intermediate-skilled students with 8.2 postings. At the opposite end of the range with fewest assignments posted were the off-campus beginning-skilled students using home computers, n=4.8. The students within the range of 6-7 cover the gamut of locations, skill levels and primary computer utilized.

The greatest difference again surfaced in usability (T4) when numbers of messages were compared across all of the student groupings. Off-campus beginning and intermediate level students using office machines posted weighty numbers, 8.5 and 9, on average, when compared with other students. The next largest number (n=3.5) was posted by off-campus, intermediate skilled students, with home computers. The numbers of usability-focused messages might not be dependent on skill level, since it was the intermediate-skilled students posting both highest and third highest numbers. A more definitive characteristic might be having the office machine as primary computer, so that the necessary hardware, Internet access, and time to e-mail or to post assignments were all available.

IMPLICATIONS FOR RESEARCH AND PRACTICE

THE PROCESS OF DATA MINING

The process began by looking at the data, a single variable at a time, e. g., students' e-mail, professor's e-mail, time of day, on-campus and off-campus locations. The off-campus data looked different from on-campus data, so multiple characteristics were then investigated. Different groupings of students were indexed by their computer experience and primary computer, as to global message categories and frequencies, e.g., personal, subject matter, or technical. Still later, these groupings were separated out by specific message content, such as T1 hardware-software; T2 connectivity issues; T3 student accounts. However, some message categories had such low incidences that the next data mining stage combined categories (see Table 4). "Why" questions were raised about certain phenomena as the initial data indexes were done and research discussions ensued. Accordingly, these questions generated additional indexes and sorts as described above.

Early on, potential key variables, e.g., gender, level of experience, location, time of day, type of problem, were brainstormed. These came from a vigorous and free-ranging discussion of what each researcher was interested in knowing. The possible indexes and sorts were listed by one researcher, time taken to individually consider the list, and a joint decision reached about how to proceed. The lead researcher was recorder and document generator. In the process, it became important to schedule the discussions frequently and soon after the data tables were prepared. Subsequent discussions naturally built on previous ones as notes were retained, and the individual personality styles of the researchers fleshed out both quantitative and qualitative concerns.

The data mining process did differentiate electronic activity for several distinct groupings of students. It did differentiate between those located off campus and on campus. Students located off-campus and using office computers were more active than those using computers at home or at a lab. Beginning level students using home computers generated fewer electronic messages than other groupings of beginners. Additionally, almost half of the electronic activity occurred during the first third of the semester.

THE PROCESS OF RESEARCH CONSULTING

The research consultant took responsibility for database manipulation and helped maintain quantitative rigor. His more analytic personality paid attention to verifying initial coding and suggesting display of resulting data in tables and graphs.

The primary researcher handled the qualitative data sorts, using the same coding categories as with e-mail, for the interview data. She provided the background knowledge of student situations from both observations and interviews.

As might be expected when two researchers delve into complex data relationships and emerging issues, the research discussions broadened into the generating of conclusions and recommendations, which became part of the dissertation narrative.

SUGGESTIONS FOR IMPROVEMENTS IN PRACTICE AND RESEARCH

Moore and Kearsley (1996) call for special organizational and teaching behaviors to bridge the distance or separation implicit in technology-delivered education. Enhanced interactions are possible with computer-mediated communication. Gaining Internet access from remote areas of the state and learning to use specific electronic tools were facilitated by e-mail to the professor and extramural programs staff. Missing institutional policies and procedures prevented the "learner-interface interaction" from being more transparent and easy to accomplish. Established procedures for extramural computer accounts and orientation to the software early in the semester were needed.

Students also indicated a mismatch between personal learning preferences and the selected instructional techniques, and the lack of structure necessary for self-directed learning to occur. Greater attention to structuring and facilitation of CMC are called for. This points to a need for faculty development and a team approach to facilitate the distance delivery of formal courses. The electronic consultant provided valuable help in developing "connectivity" options, but an instructional designer might have suggested additional ways to use the special features of CMC for the professors.

As for recommendations regarding the research design, additional courses and students might be compared by the same variables and data mining process in the future. The coding and analysis of electronic mail and postings to mailing lists and newsgroup was only one of the sources of data in this research study. When the results of the data mining were compiled, it might have been instructive to go back to the students and interview as to why they thought the results occurred as they did. Finally, there seemed to be some unidentified characteristics of students that might have provided more definitive differences as to electronic activity. The individual learning preferences; styles of communicating, e.g., electronic response patterns; gender or cultural differences, were beyond the scope of this study, but would add important detail to future CMC research.

REFERENCES

Garrison, D. R. (1989). Distance education. In S. B. Merriam & P. M. Cunningham (Eds.), Handbook of Adult and Continuing Education (pp.221-231). San Francisco: Jossey-Bass Publishers

Gunawardena, C. N. & Boverie, P. E. (1992, August). Interaction of learning style, media, method of instruction, and group functioning in distance education. Proceedings of the Eighth Annual Conference on Distance Learning (pp. 65-69). Madison, WI: The University of Wisconsin.

Levin, J., Kim, H. & Riel, M. (1989). Analyzing instructional interactions on electronic message networks. In L. M. Harasim (Ed.) On-line Education: Perspectives on a New Environment (pp. 3-14). New York: Praeger Publishers.

Moore, M. G. & Kearsley, G. (1996). Distance education: A systems view. Belmont, CA: Wadsworth Publishing Co.

Smith, R. C. & Taylor, E. F. (1995). Teaching physics online. American Journal of Physics, 63(12), 1090-1096.

Cheryl L. Bielema, Extension Communications Specialist, University of Illinois, 51 Mumford Hall, 1301 W. Gregory Drive, Urbana, IL 61801. PH 217-333-7118. EM bielema@uiuc.edu
Presented at the Eastern Adult, Continuing and Distance Education Research Conference, Penn State University, University Park, PA, October 24-26, 1996.

CONTINUING HIGHER EDUCATION IN HUNGARY: IMPLICATIONS FOR INTERNATIONAL COOPERATION

Dr. Cheryl M. Boyer

ABSTRACT

Opportunities for continuing higher education in Hungary and other countries in the region have yet to evolve in the post-communist era. Higher education institutions are struggling to re-establish themselves, and their efforts appear to be more focused on the traditional college or university experience. During this study I had the opportunity to learn of the role that private organizations are playing to support the learning needs of adults in two emerging professional fields. The individuals with whom I spoke recognized that adults have tremendous learning needs, but that higher education institutions are not generally in a position to address the continuing higher education needs of their citizens. Unfortunately, the lack of publicly funded resources serves as a formidable barrier. Continuing educators in other parts of the world can assist educators in Central and Eastern Europe in their quest to bring continuing education to their citizens. Our challenge in the West is to recognize that we have a role to play in this shrinking world and to take advantage of available opportunities to promote lifelong learning where ever we can.

INTRODUCTION AND PURPOSE

In the Spring of 1994, I seized the opportunity to spend two weeks in Central Europe with friends who were consulting for a year for the Soros Foundation in Budapest, Hungary. While there, I wanted to take advantage of the opportunity to network with professional educators who were engaged in adult education activities in that beautiful country. In this paper I will describe my goals to learn about the continuing higher education opportunities available to select populations of adults in Hungary, relate these goals to published information, and finally, discuss how this limited experience can suggest ways to enhance cooperation among adult educators internationally.

The purpose in this study was to explore the current state of continuing higher education opportunities in post-communist Hungary. The objectives were threefold:

1. Compare pre-1989 adult continuing education opportunities with those which exist since the fall of communism,
2. Examine adult continuing education opportunities in select professional fields through interviews with educators engaged in those fields, and
3. Recommend ways in which adult continuing educators can engage in international cooperation to enhance the learning opportunities of adults world wide.

CULTURAL PERSPECTIVE

It is very difficult to compare anything in Central or Eastern Europe with anything American. First, there is a language barrier; only a small percentage of the Hungarian population speak English, limiting the sources of information. And even when interviewing English speaking individuals, word meanings and perceptions vary according to cultural interpretation, necessitating care in reflecting on information gained and conclusions drawn.

Second, our histories and cultures differ greatly; those of us in the West are generally unfamiliar with the history of Central and Eastern Europe and the religious and historical influences on their culture. Finally, I was there for a limited period of time. While the experience was of high quality, I cannot generalize beyond that which I directly experienced.

Budapest is a splendid city, but one filled with contradictions. The "Blue Danube" is not blue, but quite brown and polluted with industrial waste. Yet it is spectacular with its many bridges, separating the rolling hills of Buda from the flat city of Pest. The buildings are magnificent architectural masterpieces, complete with frescos painted on the exteriors and wonderful statuary, however, they are blackened with air pollution. This is the back drop against which I viewed my experience in Hungary.

A REVIEW OF THE LITERATURE

A literature search revealed little available in English relating to continuing higher education in Hungary specifically, or in the Eastern European region generally. However, several sources provided an ability to contrast higher education conditions prior to the fall of communism in 1989 with more recent experiences. Writings related to continuing education were even more limited. The literature for the most part confirmed or clarified information gleaned from interviews while in Budapest.

Hungarian higher education prior to 1989, like that in the rest of Central and Eastern Europe, was governed by Marxist-Leninist ideology. Sadlak (1986, 1991) summarizes how higher education was made an integral part of both the political and the economic systems which characterized communist ideology. Two documents provide a limited view of how the education of adults fit into the greater Marxist-Leninist scheme of education in Hungary. Sari and Durko (1989) describe two case studies which provide an idea of the limited types of adult education programs available in Hungary prior to 1989. However, neither example in this article would be considered to fall within the definition of continuing higher education.

Published proceedings of the Hungarian National Centre for Educational Technology, held in Budapest in 1986, describe the major areas of discussion surrounding the topic of "Methods of Training of Adult Educators". Through the summaries, one can conclude that efforts in adult education in that era centered around learning activities geared towards "workers" in various fields, but the literature also recognizes the need to establish adult education structures to meet the needs of society and individuals. This description of education prior to 1989 provides a backdrop against which the dramatic political, economic, and social changes which occurred since the fall of communism can be viewed.

Six years(at the time of this study) after the collapse of communism in Central and Eastern Europe, a sober evaluation of the educational difficulties which remain to be solved has become apparent. But in spite of these difficulties, a great deal of positive effort is underway to effect change in higher education opportunities in the region. Less clear is the picture for continuing higher education opportunities for adult learners.

Several authors recognize the changes, opportunities, and challenges confronting these countries (Bollag, 1991, Casapo, 1991, Rupnik, 1992, Sadlak, 1991 Tarrow, 1989 and Woodard, 1993 and 1994). The most positive change is that higher education has regained its autonomy. There has been a return of the principles of academic freedom. Centrally prescribed compulsory courses have been dropped, and the academic environment has become more competitive and more market-oriented. Hungary, like other countries in the region, is now looking to compete in the larger, more united Europe. Thus their challenges are great. They must establish, within a very short period of time, structures that were built elsewhere over a long period of time. For higher education and continuing education, this implies a different type of interaction between educational systems and the societal structures undergoing massive change.

Two specific challenges bear a direct relationship to the goals of the current study. The first relates to expanding participation in adult education activities (Sadlak, 1991 and Rupnik, 1992) and the second relates to the financing of that education. Given this situation, one of the prime challenges facing Hungary is educating its educators, a fertile ground for continuing education.

The whole issue of financing of higher education must be addressed from a public policy perspective, however, the needs are immediate and the wheels of government and policy change move slowly. In response to this need, several private initiatives have been launched. One such initiative is the Trans-European Mobility Scheme for University Studies (TEMPUS), which was formed to provide a means by which universities in European Union countries could collaborate with partners in Eastern Europe in rebuilding higher education in the region (Woodard, 1994). Another private effort in Central and Eastern Europe is sponsored by the Hungarian-American philanthropist and financier, George Soros, who has created the Soros Foundation and the Open Society Institute. It is through this Institute and resulting contacts that I obtained most of the information for this study.

METHODOLOGY AND FINDINGS

The methodology for this study consisted of case studies examining actual practices of adult continuing education of select groups in Hungary. Information was collected through interviews with individuals associated with the Open Society Institute, and focused on a general overview of continuing education, the education of social workers, and continuing education of health education teachers.

Through these interviews, I queried the need for adult learning opportunities, the opportunities for adult education participation, the resources available, the barriers which prevent learning needs from being met, and what adult educators in the United States can do to help educators in Hungary meet the lifelong learning needs of adults. This latter question will be addressed in the concluding section of the paper.

The Open Society Institute administers the Higher Education Support Program (HESP), which promotes reform of the region's higher educations systems. HESP has been working through local related commissions to fund and provide assistance on national projects in the Central and Eastern European region and is now moving toward regional projects in targeted areas of need (i.e., those which will build a curriculum in a specific area or develop a certain program).

The major conclusions from the interview with Ms. Davenport, then the director of the HESP Included:

> °In terms of current opportunities in adult education, there is some distance education occurring (i.e., taped programs) but not adult education in the usual use of the word.
>
> °Adult education was heavily promoted under communism because they valued skill development in their workers in order to enhance the work force. The fall of communism saw the collapse of adult education because of its identity with the Marxist-Leninist philosophy.
>
> °Learning needs exist at all levels for people to be able to retain their jobs and to develop the skills needed in a more competitive European environment. There is also a need for access to part-time or evening study; this too is not available.
>
> °In order to understand the barriers to adult education it is important to understand the symbolism associated with totalitarian regimes, such as the red star, which is outlawed for use in the country (even if for fun or in jest). Adult education carries the same symbolism as the red star and thus there is great resistance to it. The resistance will have to be dealt with before the learning needs of adults can be addressed.

° Professional training is seen as being different from the training of scholars. However, with the "brain drain" being experienced by the country one can understand this sense of priority, at least in the short term.

The major conclusions from my interview with Gabor Hegyesi, head of the Social Work Department at Barczi Gustav College in Budapest include:

°The need for adult learning opportunities for social workers exists for both attainment of job skills and for knowledge enhancement. The state controls who is able to pursue advanced study leading to a doctorate, which has effected access to continuing education opportunities for adults.

°Funding does not exist for students to obtain release time to engage in full time study. Social work faculty need additional programs of study, including an opportunity to do research to meet the growing needs of the field.

°Opportunities for adult education participation in the field of social work are not generally available. Existing university programs focus on the young full-time student. No opportunities exist in the community to engage in continuing education.

°Resources available to meet adult learning needs are found in professionals like Professor Hegyesi with the knowledge and commitment to effect change. The institutions exist; it is the programmatic focus that is lacking for adult education.

° The major barrier which prevents learning needs from being met is the lack of state funding.

°The structure of the higher education system in Hungary forms another formidable barrier to learning. As elsewhere in Europe, there is a sharp difference between a college and a university, each with its respective mission, programmatic focus, admissions criteria, and type of degree or certificate awarded. A college graduate cannot generally pursue further study at the university level.

The major findings or conclusions from my interview with Carol Flaherty-Zonis, associate project director of the Health Education Project (a privately sponsored continuing education endeavor, which is attracting a wide variety of adults, mostly teachers) include:

°The Health Education Project includes five days of training, which consists of technical information on five subject areas, teaching skills development, new methods of interacting with children, new understanding of the role of the teacher, and the importance of promoting self-directness in learning.

°The program is initially seen by participants as something that would be "good for the kids to learn about". Participants, who have no experience with adult education as it is known in the United States, come into the learning situation thinking they will "learn" about health education, not "experience it".

° Opportunity to participate in the Health Education Project is greatly enhanced by the fact that the Soros Foundation financially supports the entire program, including costs associated with participation. The resources available for this particular program probably exceed that which is generally available elsewhere, unless private support is available.

°In spite of the generous resources available, barriers do exist. To enter the program, school-based participants must obtain approval from their school administrators. And once the program is completed, school administrators may not allow participants to implement new learnings.

°The way the education system is structured, the way time is used, limited knowledge and skills, and the need for administrative approval can all serve as barriers to continuing education for health educators.

IMPLICATIONS FOR RESEARCH AND PRACTICE

The interviews conducted and observations made during this trip denote areas of broadening interest in and new challenges for continuing higher education in Hungary and possibly other Central and Eastern European countries. This research was not intended to be a definitive statement of the current state of continuing higher education in Hungary. However, adult continuing educators in the Western world are in a position to participate in the ever widening global economy and the resulting need to support all types of systems that interact with that economy. One of these systems involves the lifelong learning needs of adults. As educators, we need to understand the growing convergence between the political and economic systems of Eastern and Western Europe and how the whole of Europe relates to the United States. The economic challenges that affect all of us are interconnected with the need to recognize and support adult continuing education opportunities.

The following recommendations originate from the individuals interviewed on a number of ways to support educators in Hungary to meet adult education goals:

1. The first recommendation relates to sharing curricula and models for advanced study within the higher education systems, and particularly those which support part-time study.

2. Adult educators could share information on how to organize adult education programs, conduct needs assessments, implement program design, market to target audiences, and perform evaluations.

3. A real challenge, as noted from the literature, is in "educating the educators". Thus, we could take advantage of opportunities to bring folks from Eastern Europe to the United States for intensive training in adult learning theory and methods.

4. Adult educators can use personal opportunities for international travel to make connections with universities and pedagogical institutes.

I would add three additional recommendations for continuing higher education professionals to consider:

5. We should encourage undergraduate, graduate, and non-credit students to do research related to international issues, and especially challenging is the enormous change occurring in Central and Eastern Europe. We are all citizens of the world and we, as adult educators, have an ongoing responsibility to promote global thinking and awareness.

6. The increasing use of distance education provides us with new opportunities to link with higher education institutions abroad.

7. Finally, I would recommend that we look at the broader world when reviewing our graduate programs in adult education to include a strong international perspective.

REFERENCES

Csapo, Beno. (1991) Social Change and the View of Students on Life Perspectives. Paper Presented at the Biennial Meeting of the International Society for the Study of Behavioral Development. Minneapolis, MN: July 2-6.

Kinsey, Susan R. (1991). "The Challenge from Abroad: European Continuing Professional Education Moving Toward 1993." The Journal of Continuing Higher Education. 39 (3).

Horvath, Attila. (1988). Possibilities of Cooperation with Eastern Europe. Paper Presented at the Annual Forum on Education and International Competence. St. Louis, MO: May 13-16.

Hungarian National Centre for Educational Technology. (1986). International Consultation on Needs, Programs, and Methods of Training of Adult Educators. Final Report. Budapest: Author.

Rupnik, Jacques. (1992). "Higher Education and the Reform Process in Central and Eastern Europe." European Journal of Education. 27 (1/2).

Sadlak, Jan. (1986). "Comparing Higher Education Planning Approaches in Western and Eastern Europe." European Journal of Education. 21 (4).

Sadlak, Jan. (1991). "The Development of Higher Education in Eastern and Central Europe in the Aftermath of Recent Changes." Prospects. 21 (3).

Sari, Mihaly and Durko, Matyas. (1989). World Perspective Case Study Descriptions of Educational Programs for Adults: Hungary. Battle Creek, MI: Kellogg Foundation.

Tarrow, Sidney. (1994). Rebirth or Stagnation? European Studies after 1989. New York, NY: Social Science Research Council.

Woodard, Colin. (1993). "$230-Million Gift to Central European U. Expected to Enlarge Its Role in Region." The Chronicle of Higher Education. 40 (8).

Woodard, Colin. (1994). "Hungary Takes the Lead with International Focus." The Chronicle of Higher Education. 40 (46).

Dr. Cheryl M. Boyer, Director and Assistant Professor of Adult and Organizational Development, Temple University Harrisburg, 223 Walnut Street, Harrisburg, PA 17101, (717) 232-6400.

Presented at the Eastern Adult, Continuing and Distance Education Conference, Penn State University, University Park, PA, October 24-26, 1996.

PROGRAM DEVELOPMENT USING DISTANCE LEARNING TECHNOLOGIES: PERSPECTIVES OF THE DISTANCE LOCATION

Dr. Cheryl M. Boyer

ABSTRACT

The initial appeal of using distance learning technology may be the technology itself, followed by the realization that the real value is in providing access to quality educational opportunity. For distance learning to be truly successful, educators must focus on the program development, coordination and planning, and evaluative aspects of its use. Temple University Harrisburg, a graduate center for working adults, has been involved in these issues and provides the perspective of the distance location to the program development effort. This paper presents a case study of the experience of one university in implementing distance learning for adult students. Of particular importance are strategies to ensure student acceptance and success.

INTRODUCTION

Technology-based education is not the wave of the future, it is the reality of today. Good teaching is enhanced through the use of technology, and adults' natural preference for self-directedness and experiences relevant to personal and professional needs can be fostered if the technology is employed well.

Adult educators, particularly those in university-based settings, are increasingly called upon to go beyond the traditional functions associated with program development and administration of educational offerings, to the use of various technologies to reach adult populations. In our expanded roles, we must be able to superimpose technology-based systems on program development efforts. Our ability to master associated competencies shows great promise in moving our field to the mainstream of educational efforts, as more traditional educational systems are less relevant for meeting society's need for lifelong learning.

This paper will focus on a case study of the Temple University Harrisburg campus in implementing expanded distance educational opportunities for graduate students. The University began using compressed video technology in 1992 between two of its campuses for one graduate program. Since that time, it has expanded the use of the technology to four campuses and encompasses graduate programs in five disciplines. We are now in the process of developing on-line courses at both the undergraduate and graduate level to augment student access to learning opportunities. During the past four years, the University has progressed from marginal interest in technology-based education to a greatly expanded commitment to the process and outcomes involved in distance learning. Of particular interest, is the collaboration and communication with various academic and telecommunications departments in this effort. An analysis of our experience will be contrasted with the literature in the field.

OBJECTIVES

The purpose of this paper is to use a case study as a means of exploring the program development issues surrounding teaching adult learners, especially graduate students, using distance learning technologies. A specific focus will be on the perspectives of administrators and students in the distance location as they relate to the "home campus". The specific objectives of the paper are to:

1. Briefly review the literature focusing on issues such as where best to use the technology, and the advantages or limitations of technology-based education.

2. Explore program development concepts of distance learning from the perspective of the distance location, including such issues as assessing needs, coordinating, planning, and evaluating learning activities.

3. Discuss one case example of a university using distance learning technologies for graduate education for working adults.

THE LITERATURE

A number of noted educators have written extensively about distance education or distance learning, and particularly focus on the increasing use of technology in assuring access to quality educational opportunities (Cyrs and Smith, 1990, Evans and Nation, 1989, Froke, 1994 and 1995, Garrison, 1989, Merriam and Cunningham, 1989, Moore, 1990, Rossman and Rossman, 1996, and Verduin and Clark, 1991). Through this body of literature, one realizes that distance education is a viable means of providing learning opportunities to a wide variety of learners who might otherwise be constrained by time, place, travel cost, or other barriers to traditional methods of education. Thus, increasing access and removing barriers to the educational process are two of the most compelling arguments in support of distance learning. As our societal dependence on technology increases, we are at risk for creating a class of "educational have-nots", and the use of technology allows for a working together of interested parties to avoid such a creation.

One of the greatest advantages of using distance learning technologies is its potential for creating a paradigm shift from teaching to putting the learner at the center of the model. This shift should call out to the very soul of every adult educator who has longed to see the goal of student-centered learning adopted throughout the academic world. Evans and Nation (1989) are eloquent in urging us that "human competence be recognized through our quest (as distance educators) for the recognition and encouragement of self-direction and autonomy in distance students" (p. 250). Contemporary Issues in American Distance Education also includes chapters in support of the learner, including a call to create learning communities and to stimulate new ways of examining interaction between student and content.

The use of distance learning technologies can also build enrollment by serving new groups of students and can increase student retention through flexible, convenient scheduling. Students can also learn new technology-oriented skills and knowledge to help them compete in the workplace. However, the use of distance education as an instructional approach must be examined in the context of the many studies which have been concerning the efficacy of the technology on factors such as student attitudes, demographic predictors, learning style, GPA, and other success factors (Bink, et. al., 1995, Biner, Dean, and Mellinger, 1994, Cookson, 1989, Fitts, and Posner, 1967, and Verduin and Clark, 1991).

Faculty using the technology can explore new modes of teaching and learning, and reach the "new majority" or so called non-traditional student. Faculty expertise can be shared with greater numbers of students, in contrast to using part-time or adjunct faculty. Full-time faculty are more invested in the philosophy and mission of the academic program and the university. From the perspective of the distance location, using main campus faculty is a real plus.

One of the major limitations of distance learning is that is does not save money, and universities must consider the cost, not only of the technology itself, but of course development and faculty release time to properly adapt course materials (Cyrs and Smith, 1990, and Moller and Draper, 1996). While there many be cost savings to the student and to the faculty, who might otherwise have to travel to a traditional class, the other costs will be greater. Limitations associated with the appropriateness of distance learning for certain courses or types of academic disciplines are beyond the scope of this paper. However our experience at Temple suggests that some courses are more successful than others and will be addressed later.

Lack of high level administrative support, faculty training, or adequate student support services are all major barriers to success (Cyrs and Smith, 1990). Finally, our experience at Temple shows that several consecutive hours of class (i.e., three or more) , particularly at the end of a work day, results in high participant fatigue, even with breaks and arrangement of course content in short segments. However, for most of our students, access to the academic program outweighs the negative considerations, but is an issue we continue to address.

THE TEMPLE UNIVERSITY EXPERIENCE

The Temple experience using compressed video for delivering distance learning programs is one of evolution from a focus on the technology itself, to a focus on its main role of providing educational access, to now looking at the next challenge of evaluating success. The following section will examine this evolution and focus on program development, coordination and planning, and plans for ongoing evaluation.

PROGRAM DEVELOPMENT

When I entered the Temple scene in January, 1993, I found that a distance learning doctoral pharmacy program was just beginning, between the Health Sciences Center and Harrisburg, headed by a pioneer spirit from that department. The technology was in place absent any known plan for extended implementation beyond that department. However, there was strong interest and commitment by the vice president for Computer and Information Services and other leaders to enhance the use of technology within the University. Thus, my initial contacts, from the perspective of the distance location, were with the technology experts.

Recognizing the tremendous potential to expand graduate education opportunities in Central Pennsylvania, particularly for programs not otherwise available in the region, I initiated discussions with the academic department heads and deans about additional use of the technology for other academic programs. This was a long term process, with some very interested, some interested but skeptical, and others discounting the potential entirely. One strong motivating factor was the potential to increase enrollments, and thus revenue, at a time when public policy makers are increasingly critical of higher education. Another motivating factor was the possibility for faculty to develop competencies to stay current in their fields.

From the single academic program, we grew the next year to include a course in the graduate social work program. It was an experiment that taught us a great lesson about scheduling; that is, not to conduct a distance learning course if the same course is being offered in another section with a "live" professor. The tradeoff in this situation was another pioneer spirit who was willing to teach using the technology, but it turned out to be an inappropriate course. The students in Harrisburg felt like "educational have-nots", and those in Philadelphia resented "sharing" their professor. Of course, we now identify all distance learning and on-line courses in the University's schedule.

Our program development efforts simultaneously turned to several other academic departments, particularly journalism and business, the latter of which was considering our request for their program based on potential student demand. While program development discussions were taking place, the University was also installing additional compressed video equipment on the main campus, and subsequently on the suburban campus once the decision to implement the business program was finalized. The need to expand the technology was based, not on student assessment for distance education per se, but on student need for the program in the area. I saw technology as a means to an end, not an end in itself.

Thus, by Fall, 1995 we had expanded the use of the technology to both journalism and business, the latter of which was a totally new program, and which was initiated with the goal of being primarily technology-based in its delivery. This is in contrast to the other programs, which already existed in Harrisburg; the technology was seen as way to offer more courses, to expose students to main campus faculty who could not travel to Harrisburg, or to offer electives students would not otherwise have available.

Currently, Temple Harrisburg offers evening courses for the working adult student. For the 1996-97 academic year we will be offering technological-delivered courses every evening. We will also be offering one on-line course for the business students, as the first of many so planned. To support all of these efforts, the Provost appointed a committee to explore implementation issues, and a number of faculty have received course development grants to do the appropriate course revisions needed for successful implementation.

COORDINATION AND PLANNING

Coordination and planning from the perspective of the distance location occurs at three levels. The firstä is with the telecommunications department on main campus to have the equipment turned on, technical support available, and scheduling. A technician is always available at the originating site and the students in Harrisburg have the telephone number for that classroom if needed. Lectures can be taped as backup in the event of equipment failure.

The second is with the academic departments to ensure that courses using the equipment are not double scheduled and to determine what courses are needed or will be offered, based on student and academic needs. We coordinate with faculty how we can best support them in duplicating and distributing handouts and exams and what we have found works to provide student support and services. For example, we duplicate handouts FAXed to us and will return exams to professors by overnight mail. We encourage all faculty to teach from Harrisburg two or three times during the semester, which has been highly appreciated by students. One faculty even schedules dinner with the Harrisburg students.

The third, and probably most important, occurs with and for the students. Students at all locations needä to know that the course will be delivered by videoconference, and the printed schedule for the Harrisburg, as well as the main campus has an appropriate notation for every course. The first night of class a Harrisburg staff member meets with the students to explain how the equipment works, what to do if thereä is a technical problem, how to adjust the microphone, and generally answer their questions and calm their anxieties about something new and strange. One strategy we have found effective in explaining the technology to prospective students is to invite current students to academic receptions. When we did that for the business program, all the currently enrolled students came to discuss their experience in the program. We also encourage students to develop a support system, which is always important to any graduate student in a location remote from the main campus. Our business students, in particular, have developed study groups for this purpose. Students also have the professor's E-mail address and can obtain University E-mail accounts of their own. We provide the software free of charge. We think it is important for students to receive excellent service at the Harrisburg campus, a philosophy which extends to distance learning students particularly.

EVALUATION

It is not sufficient to provide increased access to higher education opportunities; a university must ensure that using distance learning technologies contributes to student success. Measuring that success is an ongoing challenge. Given our short history in providing technology-based education, we are also just beginning to address student success.

Two indicators we have now are faculty perception of student achievement and the results of one small survey. Faculty report that, in general, students in Harrisburg are highly motivated and high achieving compared to those in Philadelphia. Given that we have taught four courses in the business program, we have more experience than with the other programs. Business faculty report that student achievement equalled or exceeded that of students in Philadelphia. We will be collecting comparative grade point averages for all courses taught in the 1995-96 academic year to more objectively determine that measure of success. That these graduate students are doing well is supported by Bink, et. al., 1995, who concluded that students with greater college experience perform at higher levels in technology-based courses than would college freshmen, for example.

One small survey of students in the business program (as well as informal verbal feedback) showed that they accept distance learning and are likely to apply to the MBA program. We have a perception, as yet unsubstantiated by research, that the business students are less resistant to technology, compared to social work students, for example. The scheduling of the course (time of day) was more important to them, indicating that from a program development standpoint, we must schedule based on the students' needs and not on an existing academic schedule, which may not account for regional differences. One result for the Harrisburg campus, is that we are investigating installing a second distance learning classroom to better accommodate the students' needs for scheduling. We will also be doing a more comprehensive survey of the students in the next academic year to gather more meaningful evaluative information.

CONCLUSION

Successfully implementing distance learning is an enormous and challenging academic undertaking. Cyrs and Smith (1990) note that complex decisions must be made concerning policy, administration, instruction, technology, and evaluation for it to be successful. The professional and academic staff at the distance location can play a critical part in program development, coordination and planning, and evaluation of the distance learning enterprise, as well as provide critical student support. We are in a unique position to see how the whole is effected by the many parts which make up a successful distance learning experience.

REFERENCES

Biner, P.M., Dean, R.S., & Mellinger, A.E. (1994). "Factors underlying distance learner satisfaction toward televised courses". The American journal of distance education. 7, (1), 60-71.

Bink, M.L., et. al. (1995). "Attitudinal, college/course-related, and demographic predictors of performance in televised continuing education courses". The journal of continuing higher education. 43, (2), 14-19.

Cookson, P.S. (1989). "Research on learners and learning in distance education: A review". The American journal of distance education. 3, (2), 22-34.

Fitts, P.M. & Posner, M.I. (1967). Human Performance. Belmont, CA: Brooks Cole.

Cyrs, T. & Smith, F. (1990). Teleclass teaching: A resource guide. Las Cruces, NM: Center for Educational Development, New Mexico State University.

Evans, T. & Nation, D. (Eds). (1989). Critical reflections on distance education. Philadelphia: The Falmer Press.

Froke, M. (1994). "A vision and promise: Distance education at Penn State Part 1 - Toward an experienced-based definition". The journal of continuing higher education. 42, (2), 16-22.

Froke, M. (1994). "A vision and promise: Distance education at Penn State Part 2 - Policy and organization". The journal of continuing higher education. 42, (3), 16-23.

Froke, M. (1995). "A vision and promise: Distance education at Penn State Part 3 - Organization, finance and programming". The journal of continuing higher education. 43, (1), 17-31.

Garrison, D.R. (1989). Understanding distance education: A framework for the future. New York: Routledge.

Merriam, S.B. & Cunningham P.M. (Eds). (1989). Handbook of adult and continuing education. San Francisco: Jossey Bass.

Moller, L. & Draper, D. (1996). "Examining the viability of distance education as an instructional approach". The journal of continuing higher education. 44, (1), 12-21).

Moore, M.G. (Ed.). (1990). Contemporary issues in American distance education. New York: Pergamon Press.

Rossman, M.H. & Rossman, M.E. (Eds.). (1995). "Facilitating distance education". New directions for adult and continuing education. San Francisco: Jossey Bass.

Verduin, J.R. & Clark, T.A. (1991). Distance education: The foundations of effective practice. San Francisco: Jossey Bass.

Dr. Cheryl M. Boyer, Director and Assistant Professor of Adult and Organizational Development, Temple University Harrisburg, 223 Walnut Street, Harrisburg, PA 17101, (717) 232-6400.

Presented at the Eastern Adult, Continuing and Distance Education Conference, Penn State University, University Park, PA, October 24-26, 1996.

Electronic Performance Support Systems: Task Enhancer or Training Fad?

Lowell A. Briggs

Electronic Performance Support Systems (EPSS) offer employees on-the-job, computer-based access to training materials traditionally reserved for classroom instruction. EPSS, sometimes shortened to PSS, is defined as "an integrated computer program that provides any combination of expert system, hypertext, embedded animation, CAI (computer-aided-instruction) and hypermedia to an employee on demand" (Reynolds & Iwinski, 1995).

Since EPSS was coined by Gloria Gery at AT&T in 1989, its application continues to expand rapidly, driven in part by the cost benefit of individualized, self-directed, worksite training. Savings in training costs, lost on-the-job work hours, inefficiency of structured classroom instruction, limited recall and delay in the application of information are cited as some of the key reasons for EPSS use (Raybould, 1990; Milheim, 1992).

Proponents identify several advantages for the EPSS user at their workstation. A growing number of corporate training executives, instructional systems designers and performance technologists favor the immediacy with which the user can retrieve relevant information, the freedom, flexibility and independence of the user when "browsing" computer based programs for specific material, and the improved rate of knowledge transfer and work performance (Gery, 1989a, 1989b; Puterbaugh, 1990b).

Opponents of the use of EPSS suggest organizations are merely grasping for any type of remediation to improve performance and justify training department's return-on-investment, while cutting costs. Others who doubt the real value of EPSS point to research which suggests experienced employees only rely on EPSS for short-term verification of task, and new workers engage in information discovery until they feel proficient with tasks illustrated on an EPSS computer monitor (Carr, 1992; Clark, 1990).

While EPSS appears to offer a dynamic, new training avenue for government, telecommunications, retail, insurance, finance and utilities, its long term success may hinge on reducing factors which compromise consistent, self-directed employee use and performance. Some of these factors may include resistance to self-directed learning, age, previous mastery of skill, perceptions of job relevance, issues of empowerment, feelings of user isolation, or technology anxiety. Computer-based learning may be quite foreign to an employee who has only known off-site, traditional, classroom training. Further, employees may have little choice but to comply with organizational integration of EPSS and the desk-top, workstation "learning".

Tools to measure self-directed learner readiness (Giglielmino, 1978) and self-directed learning perception scales (Pilling-Cormick, 1994) may prove useless if modified for the computer-based user. Admittedly, debate continues as to whether EPSS is a performance tool, training or a learning system. Instructional systems models, interactive design methods and performance technology checklists help address the need to involve peak performers in the content identification and construction of a "user friendly" computer based software. Still at the core of EPSS implementation, is the an organizational obligation to clearly understand and appreciate the end user. Further research is required to understand user readiness and resistance in the self-directed EPSS setting, and to insure job performance and positive quality of worklife.

REFERENCES

Carr, C. (1992) Performance Support Systems-the next step? Performance and Instruction, February, 23-26.

Clark, R.C. (1992) EPSS--Look before you leap: Some cautions about applications of electronic performance support systems. Performance and Instruction, May/June, 22-25.

Gery, G.J. (1989a) Electronic Performance Support Systems. CBT Directions, 2(6), 12-15.

Gery, G.J. (1989b) The quest for electronic performance support. CBT Directions, 2(7), 12-23.

Guglielmino, L.M. (1987) Development of the Self-Directed Learning Readiness Scale (Doctoral Dissertation, University of Georgia, 1977) Dissertation Abstracts International, 38 6467A.

Pilling-Cormick, J. (1994) Resistance by Educators to Using A Self-Directed Learning Perception Scale. New Directions for Adult and Continuing Education; 64, 63-69.

Milheim, W.D. (1992) Performance Support Systems: Guidelines for Systems Design Integration. Canadian Journal of Educational Communication. 21(3), 243-262.

Puterbaugh, G. (1990b) Performance support tools: A step beyond training. Proceedings of the 1990 Society for Performance Instruction Conference.

Raybould, B. (1990) Solving Human Performance Problems with Computers. A Case Study: Building an Electronic Performance Support System. Performance and Instruction. November/December. 4-14.

Reynolds, A. and Iwinski, T. (1995) Multimedia Training: Developing Technology-Based Systems. New York: McGraw-Hill, 33.

Lowell A. Briggs, 3050 Whitehurst Court, York, PA 17404

Presented at the Eastern Adult, Continuing and Distance Education Conference, Penn State University, University Park, PA, October 24-26, 1996.

FACTORS OF DISTRACTION IN A ONE-WAY VIDEO, TWO-WAY AUDIO DISTANCE LEARNING SETTING

Lowell A. Briggs and G. Dale Wagner

ABSTRACT

This article describes the findings associated with learner distraction in a one-way-video, two-way-audio, four site undergraduate nursing distance learning setting consisting of 48 traditional and non-traditional student learners. Respondents completed a 39 question survey focusing on environmental distracters, including physical noise, quality of transmission and instructor interaction. Remote site students reported feelings of alienation in response to delayed instructor feedback and the perception that the instructor paid greater attention to students in face-to-face interaction with the instructor, whether or not this was actually true.

INTRODUCTION

The focus of this research was to develop an instrument that could be used to determine to what extent the negative perceptions to non-verbal cues were perceived as distractions or deterrents to learning in a one-way-video/two-way-audio (OWV/TWA) distance learning setting. The Instructional Television-Fixed Service (ITFS) broadcast originated at York College of Pennsylvania, York, PA. and was transmitted in real-time to remote classrooms located at Holy Spirit Hospital, Camp Hill, PA; Harrisburg Hospital and Polyclinic Medical Center, Harrisburg, PA; and Chambersburg (PA) Hospital. Twenty-three adult learners enrolled at York College, and a total of 25 students attended the four remote sites. The distances from York College to the hospitals range from 25 to 75 miles.

The words "noise", "distractions" and "deterrents" all represent factors which may compromise an individual's learning ability within the instructional setting or learning environment. If noise is defined as distortion of the transmitted signal, then a distraction can be defined as that which causes cognitive concentration to be interrupted, if only momentarily, by another form of stimuli. Further, distraction can be internally or externally overt, or a conscious deviation from a point of reference or thought. In this context, deterrent connotes a restriction of the complete first- or second-hand cognitive information-processing exchange (Ruben, 1988).

While environmental noise exists in every learning setting, it may not be overtly recognized, although physically received. Distractions may occur and be at the very least, unpopular, unappreciated, or the source for the formation of negative personal attitudes. This study investigated how noise and distractions are perceived against variables of age, years of professional experience, and number of courses taken via telecommunications. Learners tend to believe that they could learn more if they had the ability to view as well as hear peers at distant locations.

LITERATURE REVIEW

Few researchers have concentrated their efforts in the areas of student satisfaction in televised instruction (Abel and Creswell 1983; Barker 1987; Harrison et al. 1991; Biner 1993). Distance learner satisfaction is an inherently important criterion in judging instructional effectiveness of the learning setting (Biner, Dean, and Mellinger, 1994). These authors suggest that "maintenance of high levels of distance learner satisfaction within any televised distance learning program could result in the following direct and important program-related benefits: lower student attrition, a greater number of referrals from enrolled students, higher levels of student motivation, greater commitment to a distance education course, and better learning" (p. 61).

Wong (1987) suggests that too little study has focused on human-to-human interaction in distance education. Moore (1990) calls learner-learner interaction via audio teleconferencing valuable and sometimes essential in "a new dimension to distance education, that will be a challenge to our thinking and practice in the 1990's." Fowler and Wackerbarth (1980) further contend audio teleconferencing, compared to face-to-face instruction, is "...effective for information exchange, discussion of ideas, problems solving, some negotiations and interviewing" (p 236). Moreover, their research indicates telephone communication to be at least equal to and not inferior to direct face-to-face communication. Smeltzer and Vance (1989) suggest a loss of nonverbal stimulation, interactive spontaneity, and nonverbal feedback cues when the sender and receiver cannot see each other during the audiographic teleconferencing process.

Saba and Shearer (1992) analyzed a hypothetical model of how distance education functions in terms of transactional distance dialogue and structure, learner or instructor control, the use of active or passive speech and direct and indirect feedback mechanisms between instructor and student. Slightly more than half of their respondents preferred direct interaction with the instructor in close, immediate proximity to the students. Garrison (1990) identified only minimal peer distraction among those listening in a classroom lecture setting. This reinforces the existence of distraction, but stops short of suggesting the extent to which learning is compromised or delayed as a result of distraction.

The process of physical hearing and attention to the perceived distraction requires listening energy, which over time, diminishes causing a lack of listening concentration (Watson, 1994). Hieder (1944) submits that cognitive processing and distraction is rooted in attribution theory, when one persons attempts to attribute a cause to the observed behavior. Rogers and Kincaid (1981) suggest that there is a dual responsibility of both the sender and receiver to continue to interact, until mutual understanding is commonly achieved. Failure to attend to the sender to inquire about the level of receiver comprehension, may cause the formation of a negative judgment by the receiver about the sender. Petty and Cacioppo (1981) advance the notion that judgment processing in communication leads to the establishment of attitudes and beliefs.

If someone identifies sound, language or nonverbal cue as a distraction, it can also be referred to as "noise"; that which "interferes with the transmission of a signal from the source to the destination (Shannon and Weaver, 1949). Noise in their research is grounded in the study of signal strength and clarity of transmission and quality of the technology. If both sender and receiver recognize the existence of commonality in the context of their learning, (age, life experiences, academic major, intrinsic or extrinsic motivators, etc.), communication meaning will likely be understood (Shramm, 1954).

Fulford and Zhang (1993) tested satisfaction and interaction in the same ITFS (Instructional Television Fixed Service) delivery method as is used in this research, and found that perceptions of personal interaction are a moderate predicator of satisfaction among distance learners. Their findings suggest, as does much of this theory, that learner satisfaction is greater when at least interpersonal interaction is present in a distance learning environment.

METHODOLOGY

The research objective for this study was to select data and devise a collection method that would allow for a statistical comparison of the physical environmental distractions found in a traditional classroom environment to the same distractions found in a two-way audio, one-way video remote classroom. A 39 question survey was developed to solicit responses pertaining to student perceptions of the physical distractions. The analysis of the data involved a descriptive statistical approach with measures of central tendencies (means and medians) combined with measures of dispersions (standard deviations), allowing us to compare the perceptions experienced by the subjects located at York College and the remote sites.

This research attempted to further clarify factors which cause learner distraction in a one-way video, two-way audio distance learning environment. Our research question focused on the learner's perception of the impact of distraction. If environmental distraction is high, for example, is a learner's perception of comprehension necessarily low? Critical here is the issue of the learner's perceived ability to filter or screen out distraction. The presumption of this research is that distance learning students become accustomed to various types of distraction and do not perceive environmental distraction as a barrier to learning over time.

Using a five-point Likert scale, students were asked to rate the instructional effectiveness, instructor's preparedness for class, instructor's availability after class, technological concerns, and other distractions encountered within their environment. All participants in the study were given the same questions. Students attending classes at the remote sites were given three additional questions that queried their perception of their facilitator.

ANALYSIS OF DATA

Data in this research clearly depicts an older, more mature remote site population (N=25) than the originating site group (N=23). Remote site responses therefore, may reflect life and professional experiences, tolerance of ambiguity, distraction and geographic distance or separation from the originating site group responses. The converse of this demographic portrayal is clearly evident in the originating site, comprised predominantly of traditional aged, unmarried students. Parity among the sample population occurred with respect to employment. Both groups represent a largely full-time working contingent, as well as a significant originating site population working part-time.

DISTANCE LEARNING PREFERENCE

Slightly more than half of the remote students said they were satisfied with the distance learning orientation of the class. Only a quarter of the same group desired face-to-face instruction. While television screen quality, graphics, slides and transparencies were accepted as clear, audio volume and clarity of peer responses to questions and instructor interaction, were rated as poor. Remote site respondents rated the ability to hear their instructor as slightly better than audio quality from remote site peers.

INSTRUCTOR INTERACTION

Remote site students indicated the instructor's classroom instructional techniques, (group discussion, lecture, demonstrations and case studies), were only average in assisting students in understanding course content. This compares to only a slightly higher rating by students at York College. An interesting distinction was evident between the remote and York College students relative to the instructor's organization and apparent preparation for class. Students in direct proximity to the instructor suggested that his/her preparation was nearly outstanding. Remote students, however, perceived organization and preparation as only average.

Remote students perceived the instructor as paying more attention to students they could see versus those they only heard. Although the statistical differential here, was less than 10%, this factor may signal an alienation of remote students and their feelings of geographic separation from the instructor. Perhaps, of greater significance was the distinction of the way the instructor made each students feel a part of the class. Here, remote students felt isolated when they indicated only average sense of engagement by the instructor. Students in the York College classroom identified engagement as good.

Feedback to student questions by the instructor once again revealed clear separation between remote and on-site student groups. Remote students indicated that instructor feedback was average; students in face-to-face contact, thought immediate feedback was outstanding. This further points to the perception that remote students felt isolated.

ENVIRONMENTAL DISTRACTIONS

York College site students implied that the internal classroom noise was more of a distraction than remote students thought of their own room noise. Transmission noise via distance was "annoying to tolerable" for remote site students; whereas, noises associated with the distribution of the video and audio signal were only slightly noticeable to York students in face-to-face interaction with instructors.

CONCLUSIONS

Respondents at both sites seem to be satisfied with the overall instructional integrity. However, concerns were noted in remote site responses which seemed to identify a sense of isolation and alienation from the instructor in favor of those students immediately in front of them. This points to a relative sense of distance, perhaps, psychologically and emotionally.

The findings in this study have immediate ramifications for the organization in which this research was conducted. Technicians should be advised of the lack of audio quality from the originating site to remote site locations. If as indicated in this research, peers are having difficulty hearing peers at a distance, tests need to be conducted to determine whether or not receive capability is adequate or if students simply are not speaking loud enough to affect discernible modulation via the ITFS system.

Program coordinators may want to review equipment operations with facilitators at remote sites to insure prompt and smooth signal delivery their students. Systems procedures should also be reviewed to guarantee that all written course materials are delivered to remote sites in a timely manner and are available for distribution at the same time as originating site students receive materials. Further, instructors conducting classes at the originating site, should be provided with guidance on instructional and communication style and delivery techniques to involve remote students. Two of several publications include Boisvert's (1988) "Helping behaviors of learners in a telephone-based instruction group", and Cookson's (1995) Instructor and participant responses to critical conditions of audioconferencing."

Further study is warranted in the understanding of remote student feelings of alienation and geographic isolation. Additionally, study into the verbal and nonverbal techniques of instructor inclusion of remote site students may be appropriate. One contradictory finding which requires continued study is remote site student perception of delayed feedback versus the same student group indicator of instructor fairness to all. While other studies reveal both attitudinal and satisfaction indices of one-way-video and two-way audio distance education delivery systems, we believe this research identifies a specific dynamic heretofore, largely overlooked. Further study of remote site learning outcomes or quantifiable performance assessment is necessary to determine if alienation or isolation is reflected negatively. Additional research should explore to what extent different reactions occur when students are exposed to different learning environments and learning styles.

REFERENCES

Abel, J. D., and Creswell, K. W. (1983). A study of student attitudes concerning instructional TV. Educational and Industrial Television. (October) 72-79.

Barker, B. O. (1987). Interactive instructional television via satellite: A first year evaluation. Journal of Rural and Small Schools.

Biner, P. M., Dean, R. S. and Mellinger, A. E. (1994). Factors underlying distance learner satisfaction with televised college-level courses. The American Journal of Distance Education, 8(1).

Biner, P. M. (1993). The development of an instrument to measure student attitudes toward televised courses. The American Journal of Distance Education, 7(1).

Boisvert, D. (1988). "Helping behaviors of learners in a telephone-based instruction group" In Stewart, D. and Daniels, J. (Eds.) Developing Distance Education. (Oslo:International Council for Distance Education) pp. 121-124.

Cookson, P. S. (1995). Instructor and participant responses to critical conditions of audioconferencing. Unpublished document. (University Park, Pa.: Pennsylvania State University).

Fowler, G. D. and Wackerbarth, M. E. (1980). Audio teleconferencing versus face-to-Face conferencing: a synthesis of the literature. The Western Journal of Speech Communication 44, 236 -252.

Fulford, C.P. and Zhang, S. (1993). Perceptions of interaction: the critical predictor in distance education The American Journal of Distance Education 7(5)8-20.

Garrison, D. (1990). An analysis and evaluation of audio teleconferencing to facilitate education at a distance. The American Journal of Distance Education, 4(3) 13 -24.

Heider, F. (1944). Social Perception and Phenomenal Causality. Psychological Review 51 358-374.

Harrison, P. F., Saba, F., Seeman, B. J., Molise, G., Behm, R., and Williams, D. W. Dimensions of effectiveness: assessing the organization, instructional and technological aspects of distance education programs. Paper presented at the Annual Conference of the Association of Educational Communications Technology, February 13-16, 1991, Orlando. Florida.

Moore, M. G. (1990) Three types of interaction. The American Journal of Distance Education 3(2)1-6.

Petty, R. E., and Cacioppo, J. T. (1981). Communication and persuasion: Central and peripheral routes to attitude change. New York: Springer-Verlag.

Rogers, E. M., and Kincaid, D. L. (1981). Communications networks. New York: Free Press.

Ruben, B. D. (1988). Communication and Human Behavior 2nd Edition. New York: Macmillan Publishing Company.

Saba, F., and Shearer, R. I. (1992). Verifying key theoretical concepts in a dynamic model of distance education. The American Journal of Distance Education. 6(1).

Shannon, C. E., and Weaver, W. (1949). The Mathematical Theory of Communication. Urbana, Illinois Press.

Schramm, W. (1954). In The Process and Effects of Mass Communication. In W. Schramm (Ed.), How Communication Works (pp. 26). Urbana, Illinois: University of Illinois Press

Smeltzer, L.R., and Vance, C.M. (1989). An analysis of graphic use in audiographic teleconferences. The Journal of Business Communications, 26(2)123-139.

Watson, K. W. (1993). Communication. (6th ed.) In L. L. Barker, and D. A.Barker (Ed.) Listening and feedback in communication (pp. 49) New York: Prentice Hall Publishing Company.

Wong, A. T. (1987). Media as Agents of Interaction in Distance Learning. Canadian Journal of University Continuing Education, 13(2), 6-11.

Lowell A. Briggs, Assistant Professor, 3050 Whitehurst Court, York, PA 17404
G. Dale Wagner, Technology Director, 26 Laurel Road, Hanover, PA 17331
Presented at the Eastern Adult, Continuing and Distance Education Research Conference, Penn State University, University Park, PA, October 24-26, 1996

ACCEPTANCE OF TECHNICAL MEDIA STUDY

Susan J. Carmichael and Kathleen A. Cegles

ABSTRACT

A key factor that appears significant in the ability to successfully navigate the information superhighway is an acceptance attitude toward the use of technical media. The purpose of the retrospective descriptive survey was to investigate attitudes toward technical media (e.g., electronic mail (e-mail), facsimile (FAX), personal computer, etc.) use among 210 graduate student persisters and non-persisters in the Adult Education (ADTED) program at The Pennsylvania State University (PSU) Monroeville and University Park campuses from Spring 1989 to Spring 1994. Age (range 25-54 years) was the only significant demographic category from the 95 tabulated surveys linking technical media use and acceptance attitude. The hypothesis that non-persisting students would have a negative attitude (techno-adverse) toward technical media with a resultant lack of use (behavior) of technical media was not proven due to the inability to retrieve adequate data on non-persisters. Null hypothesis results indicated that persisters reflected an acceptance attitude toward personal computers (95.6%), e-mail (69.9%) and FAX (78%) with computers used by 88% of the respondents to assist them in their ADTED course work.

INTRODUCTION

Goals of higher education include the creation, communication and conservation of knowledge, data and information. Because of developments in technology, the generation of knowledge, information and data is occurring at an ever accelerating rate. In moving toward attainment of their goals, academic institutions are demonstrating an increased commitment toward the use of technology. The development of information technology, with its power to store and transmit tremendous amounts of information with increasing speed and sophistication, sometimes causes stress for adult learners and practitioners.

A key factor that appears significant in the ability to successfully navigate on the information superhighway is an acceptance attitude toward the use of technical media. For purposes of this study, technical media is defined as tools that include, but are not limited to, on-line communication systems (i.e., e-mail), FAX and personal computers (desktop and laptop). Babbie (1992) stated anything can be measured that exists. Attitudes exist as a concept. Attitudes cannot be observed either directly or indirectly. Behavior, on the other hand, is observable. Behaviors are indicators of attitudes.

This study was conducted to measure behaviors regarding the use of technical media and attitudes toward technical media. Of specific interest was the impact of attitudes toward technical media and persistence in graduate education programs. Past studies have shown that computer experience was related to computer attitudes for all subjects, with more positive attitudes held by those with higher levels of computer experience (Williams, et al., 1993).

The main purpose of the study was to investigate attitudes toward technical media use between persisters and non-persisters in master and doctoral level programs in the Pennsylvania State University (PSU) Adult Education (ADTED) program at the Monroeville and University Park campuses from Spring 1989 to Spring 1994. The descriptive study focused on characteristics of participants, in addition to use and acceptance of technical media among 210 graduate students in their course of studies at PSU. The authors believed that a key factor in the ability to successfully navigate on the information superhighway was an acceptance attitude toward the use of technical media. Null hypothesis results indicated that persisters reflected an acceptance attitude toward personal computers (95.6%), e-mail (69.9%) and facsimile (78%).

REVIEW OF THE LITERATURE

Whitson and Day (1994) stressed that information literacy is essential if we are to succeed in this society rather than merely exist or cope. The speed with which we retrieve information is increasing, therefore learners may experience a sense of urgency, and with that urgency comes stress. Whitson and Day (1994) emphasized that adult educators must pass on the necessary skills, knowledge and attitudes that will enable learners to: (a) access information efficiently and (b) attend to the anxiety associated with both technology and the abundance of information. Courses focusing on information literacy or integration of technological information into existing course offerings is strongly recommended. Adults become information literate when they learn how to gather information, seek out sources effectively, understand how information is organized and stored and, critically evaluate information obtained.

Perhaps the most dramatic change in perceptions about information technology was stimulated by the appearance of personal computers in the early 1980's. Experiences with computers at home, use of computers by friends, and especially by one's own children, encouraged many adults to view themselves as "potential" computer users, even if only for games or word processing (Friedman, 1994).

The Computer Technology Hassles Scale by Hudiburg is an index of computer-related stress that has been used as a multidimensional measure of "technostress" (Ballance and Rogers, 1991). Balance and Ballance (1993) selected student volunteers (n=181) from four higher education institutions to assess whether self-reported computer experience might be associated with computer-related stress. In contrast to Williams, et al. (1993), Ballance and Ballance (1993) reported that those who had a knowledge of computers may tend to experience more computer-related stress than those who had less experience with computers. The authors also found that computer-related stress is not strictly a by-product of increased interaction with computers. Students with low, moderate and high computer experience appeared to perceive the same unpleasant interactions (i.e., computerized junk mail) as unpleasant (Ballance and Ballance, 1993).

Hudiburg, Brown and Jones (1993) found that persons with college degrees experienced greater computer users' stress than those with no college experience. Persons reporting more computer "hassles" experienced more somatic complaints, indicating computer hassles were stressful. There were no significant mean differences between men and women on computer hassles or with somatic complaints.

Review of the literature uncovered a myriad of unfamiliar terms such as: technocracy, technostress, technophobia, technophile, techthusiasts and technology-adverse. According to Mitchell (1994), one-fourth of American adults have never used a computer. Even more adults (nearly one-third) are so intimidated by computers that they are afraid they will break them (technostress/ technophobia). These adults are not necessarily opposed to technology (technology-adverse), just "seriously uncomfortable" using new technology. It is not clear whether fear or sheer confusion keeps people from buying and using certain high-tech products (e.g., computers, facsimile machines, car phones, etc.). Mitchell (1994) cites that 28% of households headed by 30-44 year olds own a home computer. Income is a major factor in owning electronic items. Only 10% of households with incomes less than $15,000 own a home computer, compared to 41% of households with incomes greater than $50,000. Married-couple households with both spouses working are also more likely to own home computers (Mitchell, 1994).

The literature search was not successful in locating specific information linking attitudes toward technology with persistence in graduate school. Moving away from literature geared toward technology to the sociological and humanities citations indexes provided significantly more information on the topics being researched.

Kim and Hunter (1993) discovered that the higher the attitudinal relevance of the topic, the stronger the relationship between attitudes and behavior. The authors stated that behavior can be assessed by a respondent's indication of their "intention" or willingness to engage in various behaviors. In essence, attitude influences behaviors, therefore, behavior is indicative of attitude. Zanna and Olson (1993) found that the most common technique for measuring attitudes is self-report. They state that the utility of the attitude concept rests on the assumption that attitude influences behavior.

Koslowsky (1993) found that there are several attitudinal behavior models available for predicting withdrawal from graduate school. Koslowsky (1993) referenced Ajzen and Fishbein's "intention model" which determines withdrawal (turnover) by assessing student's "perceived difficulty of performing a behavior." A student who decides not to continue with graduate education had already been influenced by a series of social/psychological and environmental variables according to Koslowsky (1993). A decision to leave higher education suggests that a goal may not have been reached or that a goal has been temporarily interrupted. On the other hand, Koslowsky (1993) states that a student who continues in school has made a conscious decision to advance educationally.

Psychological reactions influence individual's appreciation of, willingness to become involved with, and the ability to master modern technologies according to Jones (1993). Jones (1993) stated that individual's attitudes toward technology are important to a number of aspects of adult's level and types of technological involvement. Jones suggested that understanding of the processes that help to shape technological attitudes will set the stage for developing interventions to improve those attitudes and to promote individual and organizational benefits. He further stated that technological training is becoming increasingly necessary to facilitate individual success. In education, training sessions for new technologies could be structured to be consistent with the student's self-interests. Information about technology can be presented in a way that emphasizes how technology would aid in the achievement of the learner's goals (Jones, 1993).

Those adults who desire to participate in graduate education traditionally run into several barriers to education (Cross, 1981) such as employment and family obligations, along with having little discretionary time to commute to remote campuses at inconvenient times. McCullough and McCullough (1994, p. 28) stated for increased participation and improved retention, education providers may consider concentrating adult education efforts on "matching delivery of educational services to the logistical needs of adult learners" rather than concentrating their planning on the schedule and location of their programs.

McCullough and McCullough (1994) stated that the selection of technology applications to use for instructing and curriculum should be based on an understanding of the learner and the learner's needs, with learning goals and learning style preferences as significant factors to focus on. To provide up-to-date quality educational services and products, educators along with consumers (learners) must be proficient in the use of technology and be prepared to prove the effectiveness of their technological outcomes (McCullough and McCullough, 1994).

METHOD OF DATA COLLECTION

A thirty-nine item questionnaire was prepared to assess attitudes concerning the use and acceptance of technical media in the PSU adult education program. Of the 210 mailed surveys, four were returned as undeliverable. Final sample size was ninety-five. Simple frequency distributions were tabulated for the three parts of the questionnaire. All survey responses were tabulated by individual question. The structure of certain questions elicited multiple answers. Extremes of data were discarded. Percentages were tabulated for each of the three sections of the questionnaire. Part A of the questionnaire sought social background and situational information. Part B provided information regarding the use of technical media in the adult education program. Part C explored participant attitudes toward technical media. Each of the items in Part B and C were rated on a Likert Scale by the respondents. Part B Likert scale choices included: always, frequently, occasionally, seldom and never; Part C choices included: strongly agree, agree, neutral, disagree, and strongly disagree.

Quantitative statistical analysis was conducted using a univariate analysis to investigate differences between categories. Bivariate analysis was then conducted to compare Part B to Part C and then Part A to Parts B and C. In the ninety-five tabulated surveys, age (range 25-54 years) was the only significant demographic category from Part A linking technical media use and acceptance attitude.

FINDINGS

CHARACTERISITICS

Part A (16 questions) of the survey included social background and situational questions. The survey population was 65% female and 34% male. The majority (74%) were married with 72% born between 1945-1959. The two PSU campus participant groups chosen for the survey were University Park and Monroeville, with 58% of the respondents from the Monroeville campus. In answer to the question about computer use in ADTED course work, 88% responded affirmatively, while only 29% acknowledged using e-mail for their ADTED course work. Using technical media for library searches had an 84% response rate, with 76% of participants noting they owned their own computer. The population surveyed reflected that 69% were employed full time with over half (58%) not believing that participation in the ADTED program had improved their employment status and 75% responding "no" to the question asking if participation in the ADTED program had increased their income level. The last question of Part A asked for income data when participants were active in the ADTED program. Over 26% earned less than $20,000 annually with 43% earning between $20,001 - $40,000. Several (7%), felt the income question was intrusive.

MEDIA USE

Part B (12 questions) of the survey dealt with use of technical media. The majority (82%) of the respondents used a computer to generate assignments for the ADTED program. Only 8% of those respondents used a laptop computer and 24% used CD-ROM. Electronic mail to access information for classes yielded a 10.5% response rate, email to communicate with instructors had a 7.5% response rate, email to correspond with the PSU administrative group response rate was 7% and email to correspond with other program participants had a 12.7% response rate. The FAX machine was used to communicate with instructors by only 6% of the survey respondents, FAX to communicate with the PSU administrative group was used by only 3% of respondents and FAX to communicate with other ADTED students was used by 5% of respondents. Of all the technical media available, 56.8% of the respondents felt they were encouraged to use personal computers, 10.6% of the respondents were encouraged to use the FAX, while 3% of the respondents were encouraged to use a laptop computer by their instructors. The form of technical media that was found most useful by 68% of respondents was the personal desk top computer.

ATTITUDES TOWARD TECHNICAL MEDIA

Part C (11 questions) of the Technical Media survey pertained to attitudinal dispositions toward technical media. The majority (95.6%) of survey respondents agreed or strongly agreed that every ADTED student should know how to use a computer and Part B results confirmed that 82% actually do use a computer in their ADTED studies. Although 69.9% agreed or strongly agreed that every ADTED student should know how to use email, 46.7% to know how to use laptop computers, 76% to know how to use CD-ROM and 78% to know how to use FAX, Part B: Media Use responses revealed that only a small percentage (3%-24%) actually used any of these media in their ADTED studies.

Furthermore, only 28% believed they were successful in the ADTED program without technical media, while 55% did not believe they would have been able to progress in the ADTED program without actively using technical media. As far as enjoyment of learning, 60% of respondents replied they enjoyed learning when technical media was part of the instructional process. Training in technical media use was a factor for 66.6% of the respondents who believed there should have been training provided in the ADTED program about technical media use and 53.7% believed they would not have been successful in the ADTED program without technical media competency. Finally, 63% of respondents disagreed or strongly disagreed that the role of technical media was overemphasized by ADTED instructors/advisors.

SUMMARY AND CONCLUSIONS

The hypothesis that non-persisting students would have a negative attitude (techno-adverse) toward technical media with a resultant lack of technical media use (behavior) was not proven due to the inability to retrieve adequate data on non-persisters. Null hypothesis results indicated that persisters reflected an acceptance attitude toward personal computers, e-mail and facsimile.

Only a limited number of addresses for non-persisters in the PSU Adult Education program from Spring 1989 to Spring 1994 were able to be provided by the Monroeville and University Park campuses. This skewed the sampling design in favor of persisters. Recommendations for future follow-up of the survey group would be to: (a) include all PSU campuses, (b) use a telephone survey in addition to a mailed questionnaire, (c) use class rosters from ADTED 460: Introduction to Adult Education (a required prerequisite course for continuation in the ADTED program), (d) offer a more inclusive definition for the term technical media and, (e) develop a more refined survey tool with an expanded literature review linking the survey tool with other tools such as the Oddi Continuing Learning Inventory (1986) and the Deterrent to Participation Scale by Scanlan and Darkenwald (1984).

Finally, during the time frame (1989-1992) selected for the retrospective study, access to technical media such as desk top and lap top computers at reasonable cost was limited. A follow-up survey during a more current time frame (1991-1996), in addition to increased technical media availability and lowered technical media costs, may demonstrate that student use and acceptance of technical media in the PSU ADTED program may well be increased.

REFERENCES

Babbie, E. (1992). The practice of social research (6th ed.). Belmont, CA: Wadsworth.

Ballance, C.T. & Ballance, V.V. (1993). Psychology of computer use: XXVII. Relating self-rated computer experience to computer stress. Psychological Reports, 72, 680-682.

Ballance, C. & Rogers, S. (1991). Psychology of computer use: XXIV. Computer-related stress among technical college students. Psychological Reports, 69, 539-542.

Cross, P.K. (1981). Adults as learners. San Francisco: Jossey-Bass.

Friedman, A.L. (1994). The information technology field: Using fields and paradigms for analyzing technological change. Human Relations, 47, 367-392.

Hudiburg, R.A., Brown, S.R. & Jones, T.M. (1993). Psychology of computer use: XXIX. Measuring computer users' stress: The computer hassles scale. Psychological Reports, 73, 923-929.

Jones, K. (1993). Enhancing the perceived self-relevance of technology to influence attitudes and information retention. The Journal of Applied and Behavioral Science, 29, 56-75.

Kim, M-S. & Hunter, J.E. (1993). Relationships among attitudes, behavioral intentions and behavior: A meta-analysis of past research, Part 2. Communication Research, 20, 331-364.

Koslowsky, M. (1993). A comparison of two attitude-behavior models for predicting attrition in higher education. The Journal of Applied Behavioral Science, 29, 359-365.

McCullough, K. & McCullough, J.S. (1994). The promise of the telecommunications superhighway: Conquering the limits of time and space in adult education. Adult Learning, Nov/Dec, 28-29.

Mitchell, S. (1994). Technophiles and technophobes. American Demographics, Feb, 36-42.

Oddi, L.F. (1986). Development and validation of an instrument to identify self-directed continuing learners. Adult Education Quarterly, 36, 97-107.

Scanlan, C.S. & Darkenwald, G.G. (1984). Identifying deterrents to participation in continuing education. Adult Education Quarterly, 34, 155-166.

Whitson D. & Day, M. (1994). Country roads and superhighways: Information access in the 1990's. Adult Learning, Nov/Dec, 26-27.

Williams, S.W., Ogletree, S.M., Woodburn, W. & Raffeld, P. (1993). Gender roles, computer attitudes and dyadic computer interaction performance in college students. Sex Roles, 29, 515-525.

Zanna, M.P. & Olson, J.M. (1993). Attitudes and attitude change. Annual Review of Psychology, 44, 117-154.

Susan J. Carmichael is President of NuMED Home Health Care, Inc., 5770 Roosevelt Blvd., Suite 700, Clearwater, FL 34620. Telephone: (813) 524-3227. E-mail: sjfc@aol.com.

Kathleen A. Cegles is Assistant Professor of Physical Therapy, Gannon University, 109 University Square, Erie, PA 16541-0001. Telephone: (814) 871-5640. E-mail: kcpt@aol.com.

Presented at the Eastern Adult, Continuing and Distance Education Research Conference, Penn State University, University Park, PA, October 24-26, 1996.

THE PROCESSES OF ADULT LEARNING: FAILURE AS FEEDBACK FOR MOTIVATION

Lorraine A. Cavaliere, Ed.D.
Dean of Education, Gwynedd-Mercy College

Abstract

This research demonstrates the power of failure as it serves to motivate adult learning. During the course of this type of learning phenomenon, cognitive, psychological and behavioral discoveries occur for the learner that escalate the learning and bring about personal transformations and knowledge revolutions for the learner and society at large.

Purpose and Rationale

The major objective of this research was to continue an in-depth inquiry into case studies of successful adult learners to examine the occurrence, frequency, nature, impact and role that failure plays in the evolution of active adult learning endeavors. During the final stages of research that investigated self-directed adult learning that occurred in various contexts, it became evident that the learning patterns and processes utilized by adults engaged in learning projects as defined by Tough (1979) follow identifiable patterns through which the individual progresses that lead to cognitive and/or social change. As a result of comparing and contrasting numerous studies that examined this phenomenon (Cavaliere's adult learning and the inventive process, Williams' adult learning and social advocacy, Sgroi's adult learning and dance, Carr's adult learning in museums, libraries and cultural institutions, Oliver's adult learning and social circles, Wolf and McLeish's older adult learning, Langer and Csikszentmihalyi's mindful adult learning and Zwerling's adult learning in the world of work), behavioral commonalities between the patterns and processes of the adult's learning emerged that served as a basis for the formulation of a conceptual model of adult learning. This model illustrated the sequence and patterns that evolve during active, self-directed learning. The nature of adult learning as exemplified by these data bases illustrated that this type of learning is active, problem centered, goal oriented, cyclical and interactive. During the course of this type of learning, cognitive, psychological and behavioral discoveries occur for the learner that escalate the learning and bring about personal transformations and knowledge revolutions for the learner and society at-large. This information was atypical in that it focused primarily on the processes of the learning phenomena and sought to expand the analytical perspective presently used in the field of adult education.

The questions that arose during the examination of active learning in varying contexts were: What is it that makes the learner act? Why do some people actively engage in learning? What are the source and nature of the motivation that triggers active learning? These data bases revealed similarities in identifiable variables that seem to have direct impact on the learning system and acted as a source of motivation for the learner. These variables had the ability to energize the system and triggered the learner to engage with the context to release energy in the form of actions and behaviors that subsequently resulted in change for the learner and the context. These power variables, as I refer to them, are generated by the learner, the context and the interaction between these systemic elements. These variables included, but were not limited to, the power of emotion, the partner/mentor, the model, marginality, timing and failure.

The continuation of this research has taken the form of an in-depth study of the nature and role of failure and how it serves as a powerful source of motivation for the learner when received as a form of feedback. The previous research illustrated that failure provides information to the learner that allows for retesting, comparing and contrasting of information and actions to be corrected and refined for future success. Failure is part of the learning process and successful, active learners are not intimidated by failure, but rather use it to reformulate and move on with their learning. Failure had the power to motivate these learners to remain persistent in the face of defeat, to master their goals and fulfill their dreams. This continuation study examined the impact and role that failure plays in the active learning process and the influence that failure has on the adult learner to act as a powerful form of motivation. Failure as feedback that triggers motivation was investigated as one power variable that influences the decision making and subsequent learning processes that follow the experience of failure.

Methodology

The major objective of this research is to continue an in-depth, heuristic inquiry into case studies of successful adult learners to examine the occurrence, frequency, nature, impact and role that failure plays in the evolution of active learning endeavors pursued by adults. The specific research objectives focus on the relationship and impact of failure as a form of feedback to the learner and how this feedback influences motivation for the learner. Examples of specific questions that guide the inquiry are: How is failure manifested to the learner? How is failure communicated to the learner? How does the learner perceive failure? What are the reactions of the learner to failure? What is the frequency with which the learner experiences failure and how does this effect the learning patterns and processes? What is the nature of the context within which the learner experiences failure? How does failure act as a form of feedback to the learner? How do the timing and frequency of experiences with failure impact the future learning patterns and processes employed by the learner? How does failure act as feedback to motivate the learner to continue in the pursuit of their learning goals?

Methodologically, content analysis and naturalistic inquiry are being employed as a research strategy to analyze diaries, biographies and historical documents that describe case studies of successful adult learners. The definition of a successful adult learner is in keeping with the initial research that serves as the theoretical framework for this study. Additional theoretical frameworks that inform this analysis are: adult learning theory, adult development psychology, motivation theory, communication theory and social network theory.

Initial content analyses of nine case studies of successful adult learners revealed similarities in behavioral patterns and learning processes that were a direct manifestation of reactive responses to their experiences with failure. The case studies provided examples of adults engaged in active learning in order to solve problems and achieve clearly defined personal and/or professional goals.

Using naturalistic inquiry to guide the analysis, the longitudinal trails that the learners blazed, from the inception of the problem (or the articulation of the outcome goal) to the successful completion of their learning projects, were charted for observable behavior patterns and learning processes that were identified in the original research. The subjects' thoughts and words, as well as recognizable, manifest behaviors, were counted for frequency, coded and categorized according to the ways in which the individual reacted to failure during their learning projects. The subjects for this round of analysis consisted of twelve males, some working in teams and others individually, who successfully accomplished a predetermined goal or solved a clearly defined problem through independent, self-directed learning projects. These successful adult learners included Bill Bowerman, founder of Nike, Arthur Jones, the inventor of the Nautilus machine, Fred Smith, founder of Federal Express, Godfrey Hounsfield, developer of the CAT Scanner, Kiichiro Toyota and Taiichi Ohno, revolutionizers of Toyota, Dr. James Black, inventor of Tagamet, Dick Duke, founder of ChemLawn, Spence Silver, the chemist who discovered the glue used in 3M's Post-it Notes and Kenjiro Takayanagi, Yuma Shiraishi and Shizuo Takano, inventors and developers of the VCR.

The data culled from the content analyses of these case studies was incorporated with the findings from the studies of adult learners in multiple contexts previously cited. This resultant data was compared and contrasted with the initial research findings that focused exclusively on the Wright Brothers to determined the relevance of the conceptual learning process model that evolved from these initial analyses of adult learning processes.

Findings

The initial level of investigation of the data validated the original tenets of the conceptual learning process model and identified eight behavioral themes that successful adult learners manifest relative to the role of failure during their learning project.

The nature of active adult learning as described by Cavaliere (1991, 1992) was exhibited by these adult learners in every case. The learners were involved in a high active, dynamic interchange between their own characteristics and those of the context. Their learning was problem centered, goal oriented, cyclical and interactive. Their learning involved perspective transformation (Mezirow, 1991) and change. During the initial stages of the learning project, the learner initiated an inquiry process that began with the statement of a problem or a clearly articulated outcome goal. This inquiry process was usually triggered by a situation that was highly emotional and meaningful to the learner that created a state of discountenance for the individual. This state acted as a motivational mechanism that caused the learner to engage in active learning to achieve homeostasis. This phenomenon is similar to Vegotsky's theory of the zone of proximal development, equilibration of Piaget as reinforced by Williams (1989), Wolf's (1992) creative tension and Csikszentmihalyi's (1982) zone of optimal flow-a zone between frustration and boredom.

The case studies examined revealed that the learner, in every instance, was actively involved in the learning process; cognitively, physically and emotionally. The physical act of taking some form of action was the most powerful aspect of initiating the learning process. Physical involvement, motivated by high emotional commitment, drove the learner through the context in an exploratory fashion whereby each subsequent learning behavior was a result of its antecedent. Frequently the antecedent activity was some form of failure. However, through a series of identifiable behaviors and interactions with the context, their learning resulted in some form of change for the individual and very often for society-at-large.

When confronted with failure, the learners exhibited reactions that formed patterns of behaviors that depict eight distinct themes. In each instance, the individual manifested an intense level of persistence when faced with failure. The themes of the learning behaviors manifested in response to failure involved:

1. Problem Solving

Their inquiry began with a very clearly defined problem to solve that would lead to the creation or discovery of the end concept/product. In each case the proper statement of the problem was embodied in their idea of the "elegant concept" (Nayak and Ketteringham, 1986, p.18). The learner is very often obsessed with the problem. This obsession permeates the person's being and the individual is dauntless in finding the solution. The existence of the problem seemed to provide a clarity that assisted the learners in seeing through their failures.

2. Visioning

The individual could describe the final concept or outcome product at the early stages of the inquiry. This ability to visualize the outcome or solution is a result of the individual having the capability to think bisociatively. According to Koestler, "the bisociative thinker is one not only obsessed with a problem, but one who is capable of responding to spontaneous flashes of insight in which they see a familiar situation or event in a new light. Bisociative thinking connects previously unconnected matrices of experience." (Nayak and Ketteringham, 1986, pp. 18-19). Although the learners had the final outcome envisioned, the steps to bring forth the product are not always known and may take long periods of time to unfold.

3. Objectifying

When failure did occur, the learner did not view the failure as a personal issue. It was not their failure, it was the failure of the process or method that was employed that failed to solve the problem or move the process to a successful end. The failure was not personalized and they did not perceive themselves as being failures. .

4. Emotion

There was intense emotion experienced by the learners throughout the learning process. This emotion acted as motivation to overcome failure and persist toward success. The emergences of their learning processes seem to originate first in their spirit and heart. The emotion experienced by the learners seems to provide the energy for incredible persistence and perseverance in the face of failure. And because their emotion is so deeply personal it emerges as a powerful driving force that propels the learner to fly in spite of the failure.

5. Reflecting

The learners viewed failure as an opportunity to gather information. They would analyze the details of the failure and understand what went wrong. This understanding of error provided valuable information in the form of immediate feedback for the learners to implement corrective behavior. They used the failure to hone their problem-solving skills by focusing on the trial and error aspect of the process rather than viewing the lack of a correct solution as a failure. Experimentation was their modus operandi.

6. Partnering

There were usually other individuals with whom they partnered to solve their problem. These partners believed in the learner's vision and offered support, feedback, alternative ideas and hope in the face of failure. These partners took the form of colleague, mentor, teacher, spouse, sibling or co-worker.

8. Active Learning

The learner experienced failure as a result of doing something, not just thinking about it. Their active state of learning and engaging with their contexts created opportunities for trial and error which in turn fostered new concepts and behaviors.

The findings reinforce the original research which illustrated that failure provides information to the learner that allows for retesting, comparing and contrasting of data and actions to develop corrective actions for future success. Failure is certainly part of the active learning process and successful, active learners are not intimidated by failure, but rather use it to reformulate and move on with their learning project. In these case studies, failure received and perceived as feedback, had the power to motivate these learners to remain persistent in the face of defeat in order to solve their problems and accomplish their goals.

IMPLICATION AND APPLICATIONS

The learning behavior themes that emerged provide some descriptive analyses of reactive responses to failure that are employed by successful adult learners as well as character traits that are exhibited by these learners. This information serves as a basis for future research as well as data for adult educators engaged in the development of curriculums and the facilitation of learning.

The use of the conceptual model that was constructed during the initial phase of this research provides the framework from which to analyze the behavioral patterns and processes that adults employed while engaged in active learning. One of the power variables that seem to act as an intense form of feedback for motivation is failure. This research provided a systematic study of the nature and form of failure and its impact on the adult learner.

Changing perspective relative to failure seems to be one key that these successful adult learners used to unlock the mysteries of their world and themselves. Although there is a paucity of research on this topic in the field of adult education, this study presents a preliminary attempt to explore this phenomenon to further enhance the understanding of the processes of adult learning as well as inform the research base for further investigation.

References

Brookfield, A.D. (1986). Understanding and facilitating adult learning. San Francisco: Jossey-Bass.

Brophy, J. (1988). "Synthesis of research on strategies for motivating students to learn." Educational leadership, 46 (3), 40-48.

Candy, P.C. (1991). Self-direction for lifelong learning. San Francisco: Jossey-Bass.

Carr, D. (1992). "Cultural institutions as structures for cognitive change". In L.A. Cavaliere and A. Sgroi, (eds.), Learning for personal development. San Francisco: Jossey-Bass.

Cavaliere, L.A. (1988) The self-directed learning patterns and processes utilized by the Wright Brothers which led to their invention of the airplane. Unpublished doctoral dissertation, Rutgers, The State University of New Jersey.

Cavaliere, LA. (1991). The processes of adult learning. In Proceedings of Project for the Study of Adult Learning. Normal, Illinois: Illinois State University.

Cavaliere, L.A. and A. Sgroi (Eds.) (1992). Learning for Personal Development. San Francisco: Jossey-Bass.

Cross, K.P. (1981) Adults as Learners. San Francisco: Jossey-Bass.

Csikszentmihalyi, M. (1982). Flow, the psychology of optimal experience. New York: Harper & Row.

Dewey, J. (1963). Experience and education. New York: Collier Books.

Houle, C.O. (1980) Continuing learning in the professions. San Francisco: Jossey-Bass.

Langer, E.J. (1989) Mindfulness. Reading, MA: Addison-Wesley.

Langer, E.J. (1992) "Mindful learning: a world without losers". In L.A. Cavaliere and A. Sgroi, (eds.), Learning for personal development. San Francisco: Jossey-Bass.

McLeish, J.A.B. (1976). The ulyssean adult: creativity in middle and later years. New York: McGraw Hill.

Merriam, Sharan B. (Ed.) (1993). An update on adult learning theory. San Francisco: Jossey-Bass.

Mezirow, Jack. (1991). Transformative dimensions of adult learning. San Francisco: Jossey-Bass.

Nayak, P. Ranganoth and John M. Ketteringham. (1986). Breakthroughs! New York, Rawson Associates.

Oliver, L.P. (1987) Study circles; coming together for personal growth and social change. Cabin John, MD: Seven Locks Press.

Rogoff, B. (1990). Apprenticeship in thinking. New York: Oxford University Press.

Sgroi, A. (1992). "Let's face the music and dance". In L.A. Cavaliere and A. Sgroi (eds.), Learning for personal development. San Francisco: Jossey-Bass.

Shafrir, U. and J. Pascual-Leon. (1990). "Postfailure reflectivity/impulsivity and spontaneous attention to errors. Journal of Educational Psychology. Vol. 82, No. 2, 378-387.

Smith, Robert M. (1990). Learning to learn across the lifespan. San Francisco: Jossey-Bass.

Spear and Mocker (1984) "The organizing circumstances: environmental determinants in self-directed learning". Adult Education Quarterly, 35(1), 1-10.

Tough, A. (1979). The adults learning projects: a fresh approach to theory and practice in adult learning. (Research in education series no. 1. Toronto: Ontario Institute for Studies in Education.

Vygotsky, L.S. (1978). Mind in society. Cambridge, MA.: Harvard University Press.

Williams, R.L. (1989). Finding voice: the transition from Individualism to social advocacy. unpublished doctoral dissertation, The Fielding Institute.

Wittrock, M. (1986) "Students thought process." In M. Wittrock (Ed.) The Handbook of Research on Teaching. (3rd ed.) New York: Macmillan, 1986.

Wolf, M.A. (1992). "Toward an understanding of the older learner". In L.A. Cavaliere and A. Sgroi (eds.), Learning and personal development. San Francisco: Jossey-Bass.

Zwerling, L.S. (1992). "Liberal learning and the world of work". In L.A. Cavaliere and A. Sgroi (eds.), Learning and personal development. San Francisco: Jossey-Bass.

Lorraine A. Cavaliere, Ed.D.
Dean of Education, Gwynedd-Mercy College
Sumneytown Pike, Gwynedd-Valley, Pennsylvania 19437
(610) 641-5561   email: caval.l@gmc.edu

PARTICIPATION OF OLDER ADULTS IN EDUCATIONAL PROGRAMS: A SOCIAL GERONTOLOGICAL PERSPECTIVE

Yau-Jane Chen

ABSTRACT

The purpose of this study is, from a social gerontological perspective, to reveal the factors affecting participation of older adults in educational programs at both the micro, individual perspective, and the macro, the larger social context, to identify and analyze how the demographic and socioeconomic variables such as age, health, socioeconomic status impact the participation of older adults in educational programs. The current status of participation in education by older adults, and the effect of education in later life on the elderly are described. Barriers to participation in educational activities by older people are discussed. It is found that educational practitioners are more concerned about the barriers and influences which they assume play a bigger role. These variables include institutional barriers, informational barriers, and programmatic influences. They focus relatively less on those barriers that they think they have little impact such as situational barriers and contextual influences. However, this study suggests that understanding the effect of interventions on enhancing older adults' participation in educational activities might be limited without a deeper understanding of situational barriers and contextual influences on involvement.

INTRODUCTION

Educational practitioners might expect increased participation by older adults in educational activities to reflect the following four documented facts: (1) large increases in the number of older people over the past several decades which is continuing and accelerating (Courtenay, 1989), (2) the elderly have the ability to learn (Brown, 1983; Long, 1983; McClusky, 1971; Peterson, 1983; Schaie, 1981), (3) this older population is interested in learning (Covey, 1982; Kingston & Drotter, 1983; Rebok, 1981) , and (4) participation in educational activities in late life contributes to the length and quality of older adults' lives (Guralnik et al, 1993; Parker, 1991; Thomas, 1993). However, research findings clearly show that the involvement of older adults in organized educational activities remains more a potential than a reality (Courtenay, 1989; Moyer & Lago, 1987; Robinson, 1983).

In seeking an explanation for the above phenomenon, three categories of barriers to participating in educational activities by the elderly have been explored. They were informational barriers, institutional barriers, and situational barriers (Cross, 1977; Darkenwald, 1980; Graney & Hay's, 1976; Knox, 1977).

Many efforts to remove the first two barriers have been made by researchers, such as programming meaningful curriculum and facilitating effective learning. Educators can control curriculum and have greater direct influence over learning than on situational influences (Johnstone & Rivera, 1965, cited in Robinson, 1983; Peterson & Orgren, 1982). However, the effect of these interventions on enhancing older adults' participation in educational activities might be limited without a deeper understanding of situational barriers to involvement (i.e. demographic and social factors affect the involvement of older people to involve in educational activities). Practitioners can have little direct influence over these, which may have strong implications for increased participation by the elderly in educational activities.

This study has three goals: (1) to describe the current status of participation in education by older adults, and the effect of education in later life on the elderly, (2) to explore the barriers to participation in educational activities by older people, and (3) to reveal the factors affecting participation at both the micro, individual perspective, and the macro, the larger social context, to identify and analyze how the demographic and socioeconomic variables such as age, health, socioeconomic status impact the participation of older adults in educational programs.

OLDER ADULTS AND LATER-LIFE EDUCATION

AN DRAMATICALLY INCREASED OLDER POPULATION

According to the American Association of Retired Persons (AARP, 1987), "The number of older Americans increased by 3.6 million or 14% since 1980, compared to an increase of 5% for the under-65 population." The upward trend is expected to continue into the twenty-first century, so that in the year 2000, this group will represent 13 percent of the population; in the year 2030, the population of older Americans is expected to increase to 21.2 percent.

THE ELDERLY IS ABLE TO LEARN

That the accumulation of more than 60 years of life is not a detriment to learning success and academic ability has been adequately documented by Brown (1983), Long (1981), and Schaie (1981). Other literature indicating that healthy elderly or people over age 60 are quite able to learn, includes, McClusky (1971), Peterson (1981), and Schaie and Parr (1981).

THE ELDERLY IS INTERESTED IN LEARNING

Covey (1982), Kingston and Drotter (1983), and Rebok (1981), document the strong interest on the part of many citizens 60 and more years old in "intellectual stimulation, interest in subjects offered, spending time with other, intellectual growth and development, and valuable use of my free time."

EDUCATION IN LATER LIFE BENEFITS OLDER ADULTS

Both education attendance and educational attainment contribute to longer and more active life expectancy. Analyzing gathered data on 2219 blacks and 1838 whites who were 65 years of age or older in the Piedmont region of North Carolina, Guralnik et al (1993) finds education had a substantially stronger relation to total life expectancy and active life expectancy than did race. At the age of 65, those with 12 or more years of education had an active life expectancy 2.4 to 3.9 years longer than the values for those with less education in all four subgroups defined by gender and race. Guralnik et al conclude that among older blacks and whites, the level of education, which is also a measure of socioeconomic status, has a greater effect than race on total life expectancy and active life expectancy. Additionally, since educational attainment has a strong influence on total life expectancy and active life expectancy among both blacks and whites, the authors argue a person will attain a high level of education not only may be advantageous for that person's young and middle years as a wage earner but also may be a valuable investment in increasing his or her years of active, nondisabled life after retirement.

Participation in an educational program by older adults benefits their ego integrity. Thomas (1993) investigated if, and in what way, community educational classes offered by community colleges contributed to a positive resolution of Erikson's eighth stage of life, Ego Integrity versus Despair, among six adults age 60-69. He examined whether these classes offered different values to older adults who were the top scorers (Satisfied) as compared to those who were low scorers (Unsatisfied) on the Lohman Life Satisfaction Scale (LLSS).

Three questions were asked in this study: (1) if satisfied (versus unsatisfied) older students demonstrated a propensity to use organized educational classes to attribute meaning to their lives; (2) if these two groups perceived these classes as a means of resolving developmental issues; (3) if classes contributed to a positive resolution of the developmental tasks of old age as presented by Erikson's eighth stage.

It was concluded that through exploring their own life histories, engaging in creative activities, interacting in a positive supportive environment, and seeking to integrate these experiences into a new meaning for their lives, these students found that their classes contributed to a positive resolution in favor of Ego Integrity, thereby supporting Erikson's theory, and emphasizing its importance to teachers and students in the field of older adult education.

LIMITED INVOLVEMENT OF OLDER ADULTS IN EDUCATION

The Johnstone and Rivera (1965, cited in Robinson, 1983) study reported 9 percent of those age fifty-five and older enrolled in higher education classes during the previous year. For those age seventy and older, the participation rate dropped to 4 percent. In the Harris and Associates (1975) survey, only 2 percent of the respondents were currently enrolled in continuing education programs. Cross (1979) concluded that between 5 and 10 percent of those age fifty-five and older were participants. These research findings clearly show that the involvement of older people in educational activities remains more a potential than a reality.

BARRIERS TO PARTICIPATION OF OLDER ADULTS IN EDUCATION

With these four facts of population, ability, interest, and benefit well documented by educational gerontological literature, why then do we not observe a proportional number of citizens age 60 and above participating in educational programs? Thus, the central questions for practitioners might be "Under what circumstances they will engage in learning efforts?", or "Are there barriers to participation?" Practitioners who want to serve the elderly should be aware of the variables associated with educational participation by older learners.

ROBINSON'S CATEGORIES OF INFLUENCES ASSOCIATED WITH EDUCATIONAL PARTICIPATION

Robinson (1983) argued that variables associated with educational participation fall into three different groups: (1) contextual influences, that practitioners can do very little about, (2) interventions that practitioners can use, and (3) programmatic influences, variables associated with results in the form of successful educational participation. Contextual influences include formal education, age, health, occupation, income, and community participation. Programmatic influences contain accessibility to participation, involvement in program planning, effective teaching, and meaningful curriculum.

CROSS'S TYPOLOGY OF BARRIERS TO EDUCATIONAL PARTICIPATION

Cross (1977) has classified barriers to higher education for older persons into three types: situational, dispositional, and institutional. Situational barriers are those arising from one's situation in life at a give time. Dispositional barriers are related to attitudes and self-perceptions about oneself as a learner. Institutional barriers include practices and procedures that exclude or discourage working adults from participating in educational activities -- inconvenient schedules or locations, full-time fees for part-time study, inappropriate courses of study, etc. Graney and Hays' (1979) study of 424 older persons found 26% of the sample interested in "taking classes", and they tended to give situational and institutional barriers as reasons why they had not participated.

DARKENWALD'S CLASSIFICATION OF BARRIERS TO EDUCATIONAL PARTICIPATION

Similar to Cross, Darkenwald identifies three categories of perceived or actual barriers to participation of older adults in education. They are informational barriers such as lack of course information, institutional barriers such as inconvenient schedules, relatively high fees, poor location, and complicated registration procedures, and situational barriers such as income, health, and work and family responsibilities.

SOCIAL FACTORS AFFECTING PARTICIPATION IN EDUCATION BY OLDER ADULTS

From a social gerontological perspective, researchers have identified the social factors associated with educational participation by older adults, and how these factors impact on participation. These social factors include age, health, socioeconomic status, and social integration.

AGE

Johnstone and Rivera (1965, cited in Robinson, 1983) found that continuing education participation rates ranged from a high of 29 percent among adults in their twenties to 4 percent among those seventy years of age or older. Knox and Videbeck (1963a, cited in Robinson, 1983) summarized research findings dealing with participation of adults in educational activities and demonstrated the need for caution in making generalizations about the influence of age. They found that, between ages twenty-one and sixty-nine, participation in some activities did not vary with age when other variables associated with social class were held constant.

HEALTH

Coe and Barnhill (1965, cited in Robinson, 1983) found a moderately positive correlation between the degree of participation by elderly subjects and their perceived condition of health. Knox and Videbeck (1963b, cited in Robinson, 1983) reviewed perceived health constraints on participation based on data from a cross sectional study of 1,500 adults ages twenty-one through sixty-nine. They found that age and socioeconomic status interactively affect adults' perceived health constraints. They increased with age, that upper-middle-class adults in their fifties and sixties reported fewer and different health constraints than adults in the same age range at lower social class levels, and that the health constraints reported by younger adults. Bell and Force (1956, cited in Robinson, 1983) and Webber (1954, cited in Robinson, 1983) found that older people in good health and older people from higher socioeconomic levels tend to maintain and even to increase their participation in formal associations after age sixty. Knox (1977) found that ill health exerts a powerful negative influence on participation. Because the probability of ill health increases with age, this constraint becomes increasingly important with older adults.

SOCIOECONOMIC STATUS

SES measured by education, income, occupation, and composite indices of them has significant influence on participation. Formal education is the characteristic most highly associated with extent of continuing educational participation (DeCrow, n.d.; Holden, 1958; Johnstone and Rivera, 1965; London and others, 1963, cited in Robinson, 1983). Further education can contribute to interest, ability, access, encouragement, and reward.

Participation varies with occupation. Higher proportions of individuals with professional and managerial positions participate than semiskilled or unskilled workers. Continuing education agencies tend to obtain clientele from the middle and upper social classes (Holden, 1958, cited in Robinson, 1983).

The association of income with participation has been studied many times (Lipset and Bendix, 1960; Wilson, 1941, cited in Robinson, 1983). This research found that although incomes as such may not increase participation, more adults with higher incomes participate than adults with lower incomes.

SOCIAL INTEGRATION

There appears to be a close relationship among various aspects of community participation. It is likely that those who are active in voluntary associations will also participate in continuing education. This was the conclusion reached by Mizsruchi and Vanaria (1960), who found that participants in continuing education hold more memberships and more offices in voluntary associations than nonparticipants do. London and others (1963, cited in Robinson, 1983) also showed that participants in continuing education activities were also active in voluntary associations and community cultural activities.

OTHER CHARACTERISTICS

Videbeck and Knox (1965) noted that the best single predictor of extent of participation at any age was past participation. Bloom (1964, cited in Robinson, 1983) and Robinson (1970) found that the opinions and activities of friends and relatives also help to explain some of the variation that we see in participation rates among older people.

CONCLUSION

Research findings clearly show that the involvement of older adults in organized educational activities remains more a potential than a reality. The three typologies of barriers to educational participation by older adults have served as useful tools to identify factors causing the elderly's lower involvement in educational activities. Although using different terminology, the three typologies mentioned above classify the barriers and influences primarily from the adult educator's perspective, rather than the learner's situation. On the basis of this literature review, educational practitioners are more concerned about the barriers and influences which they assume play a bigger role. These variables include institutional barriers, informational barriers, and programmatic influences. They focus relatively less on those barriers that they think they have little impact such as situational barriers and contextual influences. However, it is worth inquiry if institutional barriers to participation in educational programs for older adults were removed, would there be a significant increase in the number of older learners? Understanding the effect of interventions on enhancing older adults' participation in educational activities might be limited without a deeper understanding of situational barriers and contextual influences on involvement. That is, to better serve educational programs for older adults, the awareness of the social factors affecting older people involvement in educational activities is important. More research that focuses on how social factors impact on educational participation by older adults are needed and recommended.

REFERENCE

American Association of Retired Persons. (1987). A profile of older Americans. Washington, D.C.: Program Resource Department, American Association for Retired Persons.

Brown, C. M. (1983). On the trail of the late bloomer. Educational Gerontology, 9(2-3), 171-179.

Courtenay, B. C. (1989). Education for older adults. In S. B. Merriam, & P. M. Cunningham, (Eds.), Handbook of adult and continuing education (pp. 525-536). San Francisco: Jossey Bass.

Covey, H. C. (1982). Preliminary findings on designing higher education programs for older people. Educational Gerontology, 8(5), 463-471.

Cross, K. P. (1977). A critical review of state and national studies of the needs and interests of adult learners. National Institute on Education's Invitational Conference. Washington, D. C.

Cross, K. P. (1979). Adult learners: Characteristics, needs, and interests. In R. E. Peterson & Associates, Lifelong learning in America: An overview of current practices, available resources, and future prospects. San Francisco: Jossey-bass.

Darkenwald, G. C. (1980). Continuing education and the hard-to-reach adults. In G. G. Darkenwald & G. A. Larson (Ed.), Reaching hard-to-reach adults. New Directions for continuing education, 36, San Francisco: Jossey-bass.

Graney M. J. & Hays W. C. (1976). Senior students: Higher education after age 62. Educational Gerontology, 1(14), 343-359.

Guralnik, J. M., Lank, K. C., Blazer, D. G., Fillenbaum, G. G., & Branch, L. G. (1993). Educational status and life expectancy among older blacks and whites. New England Journal of Medicine. 329, 110-116.

Harris, L. & Associates. (1975). The myth and reality of aging in America. Washington, D.C.: National Council on the Aging.

Knox, A. B. (1977). Adult development and learning: A handbook on individual growth and competence in the adult years. San Francisco: Jossey-bass.

Kingston, A. & Drotter, M. A. (1983). A comparison of elderly college students in two geographically different areas. Educational Gerontology, 9(5-6), 399-403.

Long, H. B. (1983). Academic performance, attitudes, and social relations in intergenerational college classes. Educational Gerontology, (5-6), 471-481.

McClusky, H. Y. (1971). Background report on education. Washington, D.C.: White House Conference on Aging.

Mizsruchi, E. H. & Vanaria, L.(1960). Who participates in adult education? Adult Education, 10(3), 141-143.

Moyer, I., Jr. & Lago, D. (1987). Institutional barriers to older learners in higher education: A critique of fee-waiver programs. Educational Gerontology, 13, 157-169.

Parker, E. (1991). Toward an understanding of the experience of members of a self-help group (arthritis, group interaction). University of Toronto. Unpublished dissertation.

Peterson, D. A. (1983). Facilitating education for older learners. San Francisco: Jossey-bass.

Peterson, D. A. & Orgren, R. A. (1982). Issues in educational programming for older adults. In M. A. Okun (Ed.), Programs for older adults. New Directions for continuing education, 14, San Francisco: Jossey-bass.

Rebok, G. W. (1981). Aging and higher education prospects for intervention. Educational Gerontology, 39-47.

Robinson, P. B., Jr. (1970). Differentiating sociocultural characteristics of senior citizen participants in adult education activities in Utah County, Utah. Unpublished doctoral dissertation, University of Nebraska.

Robinson, P. B., Jr. (1983). Education for older adults. Educational outreach to select adult populations. New Directions for continuing education. 20. San Francisco: Jossey-bass.

Schaie, K. W. (1981). Adult development and aging. In I. M. Burnside (Ed.), Nursing and the aged (pp. 43). McGraw Hill.

Schaie, K. W. & Parr, J. (1981). Intelligence. In A. W. Chickering et al. (Eds.), The modern American college: Responding to the new realities of diverse students and a changing society. San Francisco: Jossey-Bass.

Thomas, J. W. (1993). The relationship of organized educational classes taken by older adults to Erickson's eighth stage of life: ego integrity versus despair. University of Florida. Unpublished dissertation.

Yau-Jane Chen
Doctoral Candidate
Adult Education Program
The Pennsylvania State University
15-P, Graduate Circle
State College, PA 16801

Presented at the Eastern Adult, Continuing, and Distance Eucation Research Conference, Penn State University, University Park, PA, October 24-26, 1996.

THE CASE-STUDY METHOD, PRACTICAL KNOWLEDGE AND COMMON SENSE

Adèle Chené

Abstract. Reflecting on her use of the case-study method, the author interprets it as a means of constructing practical knowledge. To arrive at this, she draws on two different perspectives on practical knowledge. She also refers to the notion of common sense as complementing the understanding of practical knowledge.

INTRODUCTION

The case-study method is attracting more and more adepts among practitioners of professional training because it is thought to better convey a type of understanding called practical knowledge which is essential to any practice. However, to set out to reconstruct practical knowledge with the case method, one needs some epistemological benchmarks. Practical knowledge cannot be known as such simply because it is embodied in action; also, it may not differ from common sense, which guides proper decisions and is usually taken for granted.

Unless its pedagogical possibilities are clarified, the method could become inefficient or perverted in practice. The objective of the paper is to examine the kinds of knowledge emerging in the process, on the basis of the results obtained with the case method in the context of adult education at the undergraduate and the graduate level. Our study is divided into three parts. We first describe the method and our use of it, and then we present the data. On the basis of theoretical positions we see how the method can introduce the participants to practical knowledge. Finally, we focus on the rules of action emerging in the process and interpret them as being in the domain of common sense.

THE CASE-STUDY METHOD AND THE DATA

PROCEDURE AND PRACTICE

The case-study method consists of a sequence of pedagogical activities, focused on a narrative describing a problematic situation. It is used with the intention of bringing a group of learners as close as possible to professional situations and to provide some experience of the deliberative process which characterizes any decision to resolve a problem.

There are four moments in the sequence. First, a problematic situation is drawn from one's experience. Then, a short narrative recounting it is written; the context is introduced, as well as the actions, intentions and feelings of the actors involved with the narrator, and the predicaments which bring the situation to a crisis are described. The third moment is crucial: all participants share their first impressions, they identify the key facts and the nature of the problem, and they propose and discuss possible solutions; the discussion is brought to a conclusion with an overview of the elements at stake, and rules of action are drawn. The last moment in the sequence is devoted to a critical examination of, for instance, the relationship between theory and practice, the role of the group and personal perspectives in regard to defining good practice. Finally, the participants write a report in which they reappropriate for themselves the discussion of the situation.

Resorting to narratives is characteristic of the case method. The story sets the scene as it was experienced by the author, it reproduces the sequence of a situation and the interaction of the narrator with other agents. The participants easily identify with the narrator; they take pleasure in analyzing the intentions or goals at stake, as well as in imagining possible ends to the story. The story and the situation overlap; the analysis of a case narrative is done from the point of view of an actor rather than an observer, which might partially explain why the method is thought to assist one in developing a repertoire of ideas and strategies for action.

We have been using the case method in the context of undergraduate and graduate studies in adult education. Our intention was to insure the relevance of the topics discussed and to develop an awareness of the concrete demands one has to meet in professional situations, as well as of the kind of competence required. The time available, the size of the groups and the quality of participation largely determine the strategies adopted with different groups in the different moments of the sequence; for instance, a narrative can be written by a sub-group or by each participant, a case can be analyzed and discussed by sub-groups or by the whole class, one can report on one's own narrative or on one of the cases discussed in class. Clear instructions and respect for everyone's interpretation ensure the quality of the exchange and writing the statements on the blackboard helps in recalling the numerous and complex elements of the analysis.

Attentive to the content of the case narratives, as well as to the solutions and the rules of practice emerging from the discussions, we have also been concerned with the processes involved in the method. The group of participants forms a community of professionals and professionals-to-be, who construct in various ways the meaning of the situations presented in the stories. Some elements of that meaning are embedded in the culture of the milieu and passed on in the expressions and concepts used, others belong to the small community the group constitutes. The case-study method sets the scene for the participants to recount difficult situations and imagine solutions, to communicate their ideas and beliefs, and to legitimize their view of the field of practice and of the world; in short, it is a communicative praxis. It is generally associated with the process of reflecting on practice.

THE DATA

For the present study, we analyzed five case-study reports and a series of seventeen analyses of one particular narrative. The narratives were written by the students, analyzed and discussed in class. The production of reports was intended to formalize the students' learning and serve as partial requirement for the course. Permission was later obtained to use the data for research. The reports are approximately 6 pages long. They are written in ordinary language and reflect a variety of difficulties such as open student resistance, lack of motivation, heterogeneity of a learning group. Their structure is the following: the narrative is one page long, the problem is analyzed, solutions are introduced and discussed, and rules of practice are drawn from the overall understanding of the situation. Critical comments on the outcomes of the process may be added.

THE CASE-STUDY METHOD AND PRACTICAL KNOWLEDGE

The pedagogical possibilities of the case method can be established on the basis of two different perspectives on practical knowledge: 1) a practical perspective, for which practical knowledge is related to practical reasoning, and 2) an epistemological-constructivist perspective, for which practical knowledge is part of "knowledge in use".

1) Associated with practical reasoning, practical knowledge is constructed in the course of action. It results from judgments made by agents who, engaged in often unprecedented and complex situations, feel their way toward adequate, relevant solutions; it orders the priorities and the means to accomplish one's goals. Beliefs and understandings of the situations will influence the direction taken by the agents and provide justification for their intentions.

According to Ladrière (1990: 33), "the nature of practical knowledge is to deliberate"; practical knowledge is contingent; at the moment of deliberation, many elements of the situation remain uncertain and undetermined, and consequences of actions can never be totally controlled. Acquired in the experience of a particular situation, practical knowledge cannot be generalized.

Practical knowledge is also concerned with the goal of the action and it presides over the choice of the better means to reach that goal. Part of a plan of action, the goal of the agent is called the intention. Once it is set, the agent is committed to it; however, in everyday practice, the intentions are not always clear and they may even change as the situation evolves. One may ask: "why am I doing this?", "Is this good practice?"; the concern is with one's values and the values shared within a community of practice.

The basic dynamics of the case-study method is that of narrativity which puts the participants in the middle of a an inquiry. The stories contextualize what the agents are trying to do (their intentions), facilitating factors or predicaments which enhance or jeopardize the course of action. There are two moments involved in the process: the analysis of the stories reveals to the participants the narrators' reasoning, their intentions and their thwarted attempts at reaching their goals; then, the participants take the relay by discussing the situation, proposing solutions, which might lead to different results, confronting and evaluating ideas and values; finally choices are envisaged and possible endings are imagined.

In a private school in which the priority was enrollment, beginners were put together with more advanced students in computer science; this led to discontent. Faced with this unforeseen situation, the instructor, who is also in charge of the school, had to take into account the possibility that the more advanced students might drop out because the level of instruction was deteriorating, thus undermining the reputation of the diploma. He had also to consider the possibility that the beginners might drop out due to inability to progress at the proper pace, and the possibility of overwork caused by trying to ensure good instruction for everyone. Each solution has implications and consequences; all solutions need evaluation and a compromise has to be reached. Through deliberation, the participants in the present example dealt with an inventory of possibilities and imagined what they would do if they were the instructor.

2) Malglaive (1990) refers to the totality of knowledge which governs practice as "knowledge in use" and he distinguishes two broad categories. 1) Two kinds of knowledge are formalized and invested in action; they include theoretical knowledge, which corresponds to "knowing that", and procedural knowledge, which designs ways of doing things. 2) Two other kinds of knowledge are "more enacted than told": they include practical knowledge, which guides one's judgment in a given situation, and know-how, manifest in intellectual and motor skills. The former provide some explanation of certain aspects of a situation, as well as the means to plan the action, but they need to be readjusted in view of the outcomes of action. The latter are built through experience and can be translated into rules of practice or specific competencies.

Through its discursive process, the case-study method assists one in identifying the different kinds of knowledge in use. In one narrative, for instance, the instructor was expert in computer science, but her lack both of procedural knowledge and of experience in training (practical knowledge and know- how) undermined her action with a group of unionized employees whose participation she counted on to design practical exercises, but who were resisting computer literacy in the workplace. Once solutions had been proposed, it was pointed out that participation may have negative consequences, that it is important to consult with the different actors involved in a project, to be more in tune with expectations and to prevent or attenuate the consequences of negative reactions from the trainees. These rules might guide the author of the narrative and the other participants if they encounter similar situations, but they need to be embodied in concrete actions before assurance is gained and training appears easier.

THE CASE-STUDY METHOD AND COMMON SENSE

The analysis of sixty-seven rules of practice drawn by seventeen students in one particular case-study shows that they are value-laden and most often normative (ex: "the teacher should be learner- centered"); when they are descriptive they refer either to established models or to observation (ex: "adults learn at their own pace"). Some statements are linked to the field of application or to the given context (ex: "adults' needs and interests have to be taken into account", "instructors should know their rights and obligations in the workplace"); others are taken for granted in everyday life (ex: "one should be flexible and adapt to the situation", "one should understand the problem before acting"). These statements are expressed in ordinary language and make explicit the content of practical knowledge. But, aren't these statements, as one student asked, just plain common sense?

For Dewey (1949a: 63), common sense is a mode of inquiry, concerned with "the ordinary affairs of life". On the one hand, it means judging what is to be done in a particular situation; on the other, it refers to "the rules and precepts that are taken for granted in reaching all conclusions and in all socially correct behavior". Dewey (1949b: 273-278) sees common sense as concerned with "the uses and enjoyments common to mankind, or to a given community". It is an "acquaintance" with people and things which makes a situation familiar; it is acquired by participating "in the transactions of life". Common sense is altogether emotional, intellectual and practical and it is expressed in idiomatic, even colloquial speech, "for such speech is closest to the affairs of everyday life". The rules of practice referred to above would no doubt qualify for these criteria.

Gonseth (1993: 31-32) gives a synthesis of recent models of common sense: "common sense is opposed to scientific inquiry, but it is not completely separated from it; it is natural in the sense that it is taken for granted; it is not methodical in the sense that, depending on the context, rules which appear contradictory might still be useful; it is partial in the sense that irrelevant aspects might be hidden; it is socially constructed in the sense that it implies intersubjectivity, it is based on a material and conceptual environment related to language, and, effective in a life sequence, it makes one an expert in one domain of affairs and a layperson in all others; it distinguishes between close and remote actors depending on the possibility of relating to them; it aims at action on the basis of projects, motives and anticipations" (our translation).

Common sense provides another frame of reference for practical knowledge. This may explain why the expression of the rules of practice brings the process of the case-study method to a satisfying closure; it remains close to the domain of action, it gives reasons for justification and anticipation, and it supports a theory of practice.

CONCLUSION

The case-study method introduces the participants to different modes of a formalizing process: narrative when telling a story about practice, argumentative when discussing the situation, descriptive or normative when stating various rules of action. It contributes to the construction of a theory of practice by taking seriously the relationship between common sense and various dimensions of practical knowledge in the professional field of adult education.

REFERENCES

Dewey, J. (1949a, c1938). Logic: The theory of inquiry. New York: Henry Holt and Company.

Dewey, J. (1949b). Common sense and science. In J. Dewey & A.F. Bentley, Knowing and the Known (pp. 270-286). Boston: The Beacon Press.

Gonseth, M.-O. (1993). L'ordinaire et son ombre. In J. Hainard & R. Kaehe (Eds.), Si... Regards sur le sens commun (pp. 25-50). Neuchâtel: Musée d'ethnographie.

Ladrière, P. (1990). La sagesse pratique. In P. Pharo & L. Quéré (Dir.), Les formes de l'action (pp. 15- 37). Paris: École des hautes études en sciences sociales).

Malglaive, G. (1990). Enseigner à des adultes. Paris: Presses universitaires de France.

Adèle Chené, Faculté des sciences de l'éducation, Université de Montréal, C.P. 6128, Succursale Centre-ville, Montréal H3C 3T3, Québec, Canada.
I thank A.B., for his inquisitive comments on common sense; E.V, M.G, and the group of ETA/E95, whose reports I refer to explicitly.
Presented at the Eastern Adult, Continuing and Distance Education Research Conference, Penn State University, University Park, PA, October 24-26, 1996.

ADULT EDUCATION AND EMPLOYABILITY

Adèle Chené and Brigitte Voyer

Abstract. This study of employability in the context of Quebec focuses on the use of the term itself, governmental policies, and educational programs. All this contributes to the construction of a social class of the unemployed and is here interpreted as political.

INTRODUCTION

The context of adult education is rapidly changing in the Province of Quebec, due largely to the governemental policies which have given new mandates to the education sector while at the same time imposing budgetary restrictions on it. Supposedly explicit in its meaning, education for employability is not much criticized by the public. However, in the eyes of learners and of adult educators, it is often considered deceptive. After presenting the context, we analyze the meaning of the term employability on the basis of current definitions; we review the context of various policies and programs related to employability and their results, and interpret education for employability as playing a social and a political role.

THE CONTEXT

The radical change in the future of adult education in Quebec became evident in the early eighties. Putting aside the integrated project of a learning society recommended by a study commission on adult education (CEFA, 1982), the provincial government decided that professional training would be principally the responsibility of the Ministry of Manpower and Social Welfare, and adult education, although considered vital to regional development, was given a service function with regard to production and employment (MEQ, 1984). Economic priorities led to a series of governmental policies, both federal and provincial, concerning the fraction of the adult population affected by increasing unemployment, and these policies have had considerable repercussions on the reality of adult education; new programs have been developed and new publics have been targeted by what is called education for employability.

The effects of this new reality are numerous: the public sector of adult education has to adapt to continuously revised governmental programs and shifting budget priorities, as well as to the competition of what has become the open market of adult education; the content of the programs depends on the policies, and pedagogy redefines its strategies in response to heterogenous groups of participants; learning objectives are mixed with objectives of other kinds. It is within a network of governmental socio-economic policies that the educational programs try to establish their viability and the instructors, theirs.

At present, emphasis on the development of employability is well received. However, if basic education or professional training has some real impact in so far as the learners are able to transfer their acquired competence to the context of work, it is not evident, considering the economic situation, that all the conditions are in place to ensure the relevance of education for employability. As a social practice, education for employability is largely instituted through the policies and the organizations which make it viable. It also plays an active role in legitimizing the official discourse with its programs and its efforts to attract new publics.

THE MEANING OF EMPLOYABILITY

The term employability is now widely used. Current in the United-States in the fifties, its definition as job-readiness or capacity for work is captured in the Canadian 1980-1984 glossary of terms published by the Commission of Employment (EIC, 1984). In this sense, people are said to be employable, ready to work, job ready or capable for work. A second meaning which appeared in Canada and in the United-States in the sixties refers to the "attractiveness of an individual in the eyes of employers" (Gazier, 1990: 579), and certain attitudes and behaviors, particularly the aptitude of a person for integration in the workplace, are used as criteria for measurement.

From this it follows that the development of employability will consist in adjusting the competencies of those in need of work to the employers' expectations. In Quebec, employability usually has these subjective connotations and it implies personal adjustment to the economic situation.

However, an objective meaning which is also current in Canada and tends to prevail internationally refers to the overall or relative possibility of finding a job, which depends on economic factors rather than personal ones.

Generally speaking there is a programmatic connotation to the concept of employability; it is meant to correct a situation, the ultimate goal being to find a job or to keep it. The distinctions between a subjective and an objective meaning help clarify the intentions of a given action; some programs are openly centered on finding a job, others aim at developing abilities which are expected to make the participants more "employable".

The context in which employability programs have been conceived is of consequence to the social implications of the concept. For example, the first Canadian programs were included in the 1985 federal Jobs strategy policy; at that time, beside training programs aiming at preventing a shortage of qualified manpower and at adapting workers to new technology, the programs targeting the unemployed were oriented toward acquiring some job experience rather than training.

A similar cleavage can be observed in the provincial ministerial mandates and employability programs in 1994. On the one hand, employability measures aiming at social and professional integration of the unemployed belong to the domain of social welfare; they take the form of short term training or job experience and bear little on securing a job. On the other, professional training and human resources development belong to the domain of labour.

In conclusion to this brief analysis we might be justified to say that the term employability acts as a discursive operator by shifting the attention from the objective reality of unemployment to the subjective lack of competence to enter the marketplace, by separating the unemployed from the employed in regard to professional qualifications, thus denying access to work while promising to the un- or not-yet employed a solution to the precariousness of employment.

POLICIES AND PROGRAMS

BACKGROUND

Employability programs were started with the new orientation of provincial policies regarding adult education (1984) and the federal policy on Jobs strategy (1985). Decisive moments are traced back to 1) the creation in 1984 of the provincial Ministry of Manpower, Social Welfare and Professional Training, responsible for integration and reintegration into the labour market as well as for developing the employability of the under-thirty welfare recipients; 2) the 1985 federal-provincial agreement concerning welfare recipients; 3) the inclusion, in the 1987 federal-provincial agreement on made-to- measure professional training, of a provision regarding welfare recipients; 4) the 1989 reform of the provincial social welfare system and inclusion in the law of provisions concerning the employability of the welfare recipients who are considered able to work; 5) the 1989 federal Labour force development strategy, followed by the 1990 federal reform of unemployment insurance, authorizing the allocation of moneys from the unemployment insurance funds to developmental uses aimed at, among others, those receiving unemployment insurance. Generally the orientation of the policies is now to urge, if not coerce, persons judged as capable for work to participate in training and employability programs.

The programs related to employability are supported financially by the federal or the provincial government and they are numerous, as many as 102 in 1993. (Ciesielski & Laberge, 1993) The objectives of these programs may include general or professional training at the secondary level or simply acquisition of work experience in, for example, community services or an apprenticeship leading to full employment. Access to these programs depends on a number of variables; adults on welfare are the main target but federal guidelines also target other needy groups such as long-term unemployed, unemployed youths, and women attempting to enter the workforce.

Within the framework of these employability measures, public educational institutions and private training organisms compete for the clientele coming from employment and social services offices. Private entreprise or organizations with a mission aimed at community services and local development might also be interested in benefitting from temporary subsidized manpower.

THE CONTENT OF EDUCATION FOR EMPLOYABILITY

The content of education for employability has been developed by experts from different milieux. In addition to catch-up programs in general and professional education at the secondary and collegial levels, educational programs also aim at achieving self-understanding, discovering ways of seeking employment, and developing practical abilities. The development of self-understanding helps to create self-confidence and helps the learner develop personally tailored training programs. Training in job- search techniques can require up to ninety hours; for example, in a manual (MEQ, DGEA, 1989) several subjects are introduced, among others, the characteristics desired by employers; the whole emphasizes the development of a personally tailored job-acquisition project. Finally, acquiring practical abilities is associated with work experience; the responsibility for introducing the employee to the know-how and to the various tasks required in the job is left to the employer.

THE RESULTS

Analyses of programs related to employability produce some somber conclusions. According to a study conducted for the Ministry of Manpower and Social Welfare (MMSR, 1985), young people want to find employment and do not wish to be dependent on welfare. They perceive themselves as rejects from the workforce and feel that the employability measures do not provide real work opportunities since they do not increase their work skills.

Catch-up educational programs drew some 50,000 people back to secondary education in 1992, a clientele of under-schooled adults who lacked sufficient elementary training for success and who risked continued dependence on social services at the end of the program period. (Bourbeau, 1992) The success rate has remained weak for this group of adults for whom living conditions do not favor a program of study.

Workplace apprenticeships, although not complete dead-ends, carry with them conditions that have the effect of creating a cycle which leads the individual from welfare to apprenticeship, to possible unemployment, and back to welfare.

Participation in employability training programs is accompanied by a supplementary allowance. Consequently, this adult clientele finds itself captive in a project which should be personal since learning is at stake, but which is defined first and foremost in a manner totally external to the person. Educational establishments also see their mission defined externally by the state economic priorities, the government trying either to assure the unemployed a minimum of revenue or give a boost to employment. Finally, heterogenous clienteles and more or less pragmatic objectives imposed on education and training combine to form an almost insurmountable task for adult educators.

INTERPRETATION

Elements borrowed from Habermas' (1984) theory of communicative action might contribute to unify our understanding of the empirical use of "employability," both as a term widely used in official discourse and in current language, and as a term associated with various social practices in the domains of social welfare and of education and training.

Habermas identifies two models of social action: the communicative and the strategic. In his communicative model, he doesn't equate action with communication; he explains, "Language is a medium of communication that serves understanding, whereas actors, in coming to an understanding with one another so as to coordinate their actions, pursue their particular aims" (p. 101). Understanding will require a consensual relation between actors and some cooperation in interpreting the discourse. It is presupposed that in any action actors set their goals, and have some interest in carrying out their plans of action. Social action, therefore, requires that the actors coordinate their goals and reach some agreement in regard to values and norms attached to the action.

The strategic model of action "*rests content* with an explication of the features of action oriented directly to success" (*Ibid.*). Strategic action supposes that there are at least two actors pursuing an objective, who, while achieving their goal, influence and are influenced by the other's decisions; linguistically mediated, this action brings about something in the world.

We concluded the first part of the paper by saying that the concept of employability acts as a social operator. Referring to Habermas (see p. 288) we are now interpreting the discourse on employability as communicative and strategic. With the help of the communicative act hearers and speakers come to an understanding about employability as a mechanism for coordinating actions. As a strategic act, the discourse on employability does bring about a change in the everyday world and has repercussions throughout various spheres of action.

The interaction between the different actors, the government and its apparatus, the public and private educational and training organizations, the practitioners in the field of adult education and the public targeted is multifaceted. Employability is central to the official discourse of the early eighties governmental policies. Evidently related to economic purposes, it has framed a large portion of the social practices in adult education and training that have developed since.

In dealing with the public, governmental agents who implement the policies may need to coordinate their vested interest in the success of the mission of their employer, their professional interest in making employability measures accessible to various categories of persons, and the interests of the unemployed themselves. At another level, different categories of actors have espoused and developed with program design and content the subjective meaning and programmatic definition of "employability", used to label programs destined for the targeted public of the un- or not-yet employed; the autonomy of the milieux in regard to implementing the employability programs is acknowledged (Ciesielski, 1995). Although adult education has resented the fragmentation of its field and has been critical of programs which it thought were not suited to the needs of the publics of adults targeted, education for employability became viable because adult education itself was, as a social practice, ready to respond to the demands coming from the welfare and manpower sectors. Furthermore, values imbedded in the tradition of the pedagogical discourse and practices have reinforced the subjective meaning of employability.

We have interpreted the discourse on and educational practices related to employability as communicative and strategic. Together they provides a basis of understanding to coordinate actions and they bring about a crucial change in the present society. In our view, that change is above all political, since it operates a shift in power.

Indeed, discursive and educational practices appear to contribute to the construction of the social class of the unemployed by 1) separating the unemployed from the employed and confirming the separation between those who are capable to work and those who are not; 2) including the unemployed in the space of employment by offering the possibility of job experience, but under conditions that exclude them from the labour market; 3) shifting the responsibility of employment from the labour market to the un-or not-yet employed themselves; 4) promissing a future to the unemployed by encouraging the construction of personal projects in regard to learning and employment, but denying it to them because objective economic factors outweigh personal educational factors in the job market.

CONCLUSION

Many adult learners touched by the employability policies have had to live with and adapt to new constraints. For many practitioners in adult education this situation has brought new demands and upset their practice. Some understanding of the implications and the repercussions of the policies is vital for the adult educators who, as social actors interacting with learners, need to evaluate their role in a practice which is purpose-oriented and largely determined by the policies regarding employment and social welfare.

REFERENCES

Bourbeau, L. (1992). Les populations de l'éducation des adultes en formation générale dans les commissions scolaires. Québec: FEECS (CEQ).

CEFA (Study Commission on adult education) (1982). Apprendre, une action volontaire et responsable. Québec: Ministry of Communications

Ciesielski, G. (1995). L'employabilité et la réforme des programmes sociaux: coup de pouce ou coup de pied? Le travail: nos droits en péril, des principes à réaffirmer. Proceedings, Groupe Au bas de l'échelle. 56-58.

Ciesielski, G. & Laberge, D. (1993). Le caroussel de l'employabilité, Relations, 595. 273-275.

EIC (Employment and Immigration Canada). (1984). Lexique des termes/Glossary of terms. Ottawa.

Gazier, B. (1990). L'employabilité: brève radiographie d'un concept en mutation. Sociologie du travail, 32(4), 575-585.

MEQ (Quebec Ministry of Education). (1984). Un projet d'éducation permanente: Énoncé d'orientation et plan d'action en éducation des adultes. Québec.

Habermas. J. (1984). The Theory of Communicative Action (T. McCarthy, Trans.). Boston: Beacon Press.

MEQ (Ministry of Education) (1989). *Développement personnel et social. À la recherche d'un emploi*. Cahier de matériel d'apprentissage. Direction générale de l'éducation des adultes. Québec.

MMSR (Ministry of Manpower and Social Welfare, Evaluation Bureau). (1985). *Étude d'évaluation sur les mesures de relance. Stages en milieu de travail, Rattrapage scolaire, Travaux communautaires: La participation des jeunes bénéficiaires de l'aide sociale*. Québec.

Adèle Chené, Faculté des sciences de l'éducation, Université de Montréal, C.P. 6128, Succursale Centre-ville, Montréal H3C 3T3, Québec, Canada.

Presented at the Eastern Adult, Continuing and Distance Education Research Conference, Penn State University, University Park, PA, October 24-26, 1996.

PROGRAM PLANNING FOR INTERNATIONAL AUDIENCES: DEVELOPING NEEDS ASSESSMENTS AND CULTURALLY SENSITIVE PROGRAM DEVELOPMENT PROCESSES

Jeri L. Childers

INTRODUCTION

Successful program planning for international audiences requires new programming roles and new competencies. Globalization also requires global-oriented program planning. Continuing and distance education program planners must consider the inter-cultural issues that can emerge in the design and delivery of education in cross-cultural settings.

NEEDS ASSESSMENT

Globalization and international continuing education is impacting the needs assessment approaches for continuing and distance education and the role of program planners. Increasingly, program planners will be facilitating transnational program planning teams. These global teams require collaboration across national, cultural, social, ethnic, and economic differences. Planners will need to place a greater emphasis on people skills, add more global perspectives, foster creativity and innovation, promote real-world problem solving, and examine issues from the viewpoint of multiple disciplines (Rhinesmith, 1993).

Needs assessments should combine a number of approaches to collect data from a variety of sources, i.e., use of primary data sources, interviews with key informants of the country, interviews with potential participants, and site visits. Needs assessments should address areas that include: inter cultural phenomena, inter cultural instructional design issues, facilitator-learner issues, culture-specific content, facilitator issues as well as international and multicultural issues.

CULTURALLY SENSITIVE PROGRAM DEVELOPMENT PROCESSES

The program development process should be planned with a transnational team if possible. The team should include members of the target group or the learner's culture. The team should anticipate differences in culture that impact planning. Trompenaars (1993) notes that cultural differences can arise from cultural-specific attitudes toward 1) relationships with people, 2) time, and 3) the environment. Cultural differences among team members will dictate the pace of the planning process, the methods of team communication and planning, as well as the way the team members relate to each other throughout the development process. Finally, the instructional design itself as well as the logistics of program delivery must consider the needs of the learner and the inter cultural instructional design issues.

SUMMARY

Needs assessment is one of the key challenges that faces the program planner during program development process. New and flexible needs assessment approaches are required in this dynamic environment. In the future strengthening continuing education practice will require an increased understanding of diversity in the global setting and an ability to translate diverse learner and instructor needs into a culturally sensitive program development process.

REFERENCES

Odenwald, S.B. (1993). Global training: How to design for the multinational corporation. Business One Irwin, Homewood, IL.

Rhinesmith, S.H. (1993). A manager's guide to globalization: Six keys to success in a changing world. Irwin Professional Publishing, New York, NY.

Trompenaars, F. (1994). Riding the waves of culture: Understanding diversity in global business. Irwin Professional Publishing, New York, NY.

Jeri L. Childers, Senior Program Planning Association, Penn State University Continuing and Distance Education, Office of Program Planning, 403 Keller, University Park, PA 16802-1304.

Presented at the Eastern Adult, Continuing and distance Education Research Conference, Penn State, University Park, PA, October 24-26, 1996.

Jeri L. Childers, Senior Program Planning Association, Penn State University Continuing and Distance Education, Office of Program Planning, 403 Keller, University Park, PA 16802-1304.

Presented at the Eastern Adult, Continuing and distance Education Research Conference, Penn State, University Park, PA, October 24-26, 1996.

WHY DO ADULT EDUCATORS IN THE EMPLOYMENT AND TRAINING FIELD PARTICIPATE IN CONTINUING PROFESSIONAL EDUCATION?

Jeri L. Childers

ABSTRACT

This study investigated a professionalizing occupation (employment and training specialists) by exploring the components of the professional model as they applied to this occupation. This study sought to understand the relationship between: (1) the participant's reasons for participation in continuing professional education, (2) the participants' attitudes toward their profession, and (3) the demographic characteristics of the members of the employment and training field--an occupation that is professionalizing.

INTRODUCTION

The systems of continuing education and continuing professional education (CPE) are changing with the professionalization of the workforce. Effective CPE program design is based on the needs of the learner which requires an understanding of the professionals' reasons for participation and their attitudes toward their profession. These data are particularly important for members of professionalizing occupations.

The employment and training field is an emerging profession serving the needs of economically, educationally and otherwise disadvantaged persons seeking employment. The employment and training field is a national system which includes public and private sector agencies and human resource organizations delivering educational and employment services.

RELATED LITERATURE

This study involves a review of issues related to reasons for participation in continuing professional education, research on professionals and the professionalization process, and the employment and training field. The nature of participation in continuing education is quite different for professionals than adults in general. These differences among professionals and the general adult population imply that different approaches are required to research the participation of professionals. Grotelueschen, Kenny, and Harnisch (1979) developed an instrument that links research in participation to elements of program design, the Participation Reasons Scale.

In an effort to study the development of professions, a variety of approaches have been used to define the professions and the professionalization process. This study utilized a process approach which evolved starting in the 1960s with the work of Vollmer and Mills (1966), Wilensky (1964), and Hall (1968). This approach focuses on the analysis of how professionalized an occupation has become rather than the "all-or-nothing-at-all style favored by the static approach" (Cevero, 1988, p. 7). This approach also allows for analysis of the dynamics of an emerging profession like the employment and training field.

The trend toward professionalization of occupations within the United States has accelerated with the broad changes in social structure as seen by the impact of the increases in knowledge, technology, and specialization within occupations. Occupational groups have been motivated toward professionalization to improve services or performance as well as to improve status within the occupational groups.

The process of professionalization of an occupation can be studied by comparing the structural and attitudinal components of an emerging profession with the attributes of the professional model. The professional model can be used as a template to distinguish professionals from less or non-professional occupations. Moving toward congruence with the professional model is the professionalization process (Wilensky, 1964). The assumptions of the professional model and this study were that the structural and attitudinal characteristics exist in high degree in highly professionalized occupations. Occupations with members ranking highly on these dimensions are more congruent with the professional model.

One of the most important components of the professionalization process is the attitudinal components of an emerging profession. The attitudinal components related to professionalism are measured in Professionalization Scale with factors that include: (1) use of professional organizations as reference groups, (2) belief in service to the public, (3) belief in self-regulation, (4) sense of calling, and (5) autonomy (Hall, 1968).

As a professionalizing occupation, the employment and training field exhibits both the structural and attitudinal components characterized in the professionalization model. Over a period of years, Technical Assistance Training (TAT) systems have been established and developed in each state. A few states have built strong TAT systems by establishing training institutes including some located on university campuses. Professional development training in the employment and training field is delivered to professionals through in-house activities, through training units in large and small organizations some of which are proprietary in nature. Typical of many emerging professions, the employment and training field can be characterized by diverse job titles, role expectations, and subject specifications that range from program administration, program planning, fiscal administration, to client services (assessment, counseling, job development, placement, etc.), to facilitating on-the-job training, work experience, vocation or other training. Required competencies are changing as the professional identity of this field is clarified, as federal legislation changes, or as employers of members of this occupation are repositioned to meet the changing needs of the clients being served.

Understanding the reasons for participation in CPE and their relationship to the work place and the profession can provide useful information for program planning for professionals. Research on participation is extensive; although a comprehensive framework for understanding the interaction of related factors has not been developed. Less attention has been directed toward participation in CPE for occupations emerging as professions. Still fewer studies have examined participation within the employment and training field. No study has quantified the relationship between reasons for participation and attitudes in an emerging profession.

METHODOLOGY

The data collection instruments used were Grotelueschen's (1985) Participation Reasons Scale (PRS), Hall's (1968) Professionalization Scale, and a demographic data form developed by the researcher. The study was administered to a sample of 300 employment and training specialists in Missouri in January, 1993 (with an eighty-percent response rate). Statistical analysis included Canonical Correlation, Multivariate Analysis of Variance, and Analysis of Variance. Each instrument was subjected to item analysis and principal component factor analysis.

FINDINGS

This study resulted in a number of findings that have implications for planners of CPE. Each research finding will be described with recommendations for instructional design.

RESEARCH FINDING 1

Employment and training professionals place the highest importance on the reasons for participation that are associated with competence, proficiencies, leadership and productivity.

Implications for Practice

Curriculum should focus on skill building, skills practice, and best practices. Role clarification, task analysis, and competency identification should be given priority and be translated into curriculum design. This emphasis on competencies may indicate that the members are ready for certification programs in the primary functional areas. Opportunities for self assessment and bench marking may be important elements of future program design.

RESEARCH FINDING 2

The reasons for participation among this group are complex and go far beyond the need to "keep abreast of new developments," [these data are supported by the findings of Cevero (1988).] These reasons in rank order, based on mean scores were: (1) Professional Improvement and Interaction, (2) Collegial Learning and Interaction, (3) Personal Benefits and Job Security, and (4) Professional Service.

Implications for Practice

Employment and training professionals participate in educational programs to learn from peers which can be facilitated informally by including participants in advisory committees, program design and program delivery planning groups. Professionals value exchanging techniques and information and may more readily participate in more informal designs, i.e, networks, task forces, specialized practice areas (particularly in professional associations), in round table discussions and retreats. Employment and training professionals participate for personal benefits and job security which may indicate that career development models and approaches linking individual, group, and organizational goals with education and training models are important.

RESEARCH FINDING 3

Employment and training professionals' reasons for participation were based on selected demographic characteristics, i.e., role in the organization and gender (education level was not a factor). These members participate in CPE for reasons beyond content. Administrators and managers placed significantly more importance on selected reasons for participation compared to line staff (professional/technical staff). Females placed significantly more importance on reasons related to competence, collegiality and service than did males.

Implications for Practice

It will be necessary to narrow the program design to accommodate the needs of the various participants. Instructional designs should be congruent with the needs and motivations of the largest niches of participants. Marketing strategies should be customized based on demographic profiles. As administrators can be key decision makers in the purchase of CPE for their professional staff, reasons for participation should be key in the development of targeted marketing messages.

RESEARCH FINDING 4

There were five main factors which represented the underlying attitudes toward their profession and provide evidence of level or stage of professionalization of the employment and training professionals. The attitudes in rank order, based on mean scores were: (1) Use of Referent Identity, (3) Calling to the Field, (4) Belief in Self-Regulation, and (5) Belief in Autonomy. More interesting were the divergent views related to professional roles and customer service. The evidence of divergence or ambiguity of role definition and standard approaches indicates that this occupation is struggling with issues typical during early stages of the professionalization process. CPE practitioners can have an impact on the professionalization process through instructional designs and programming that clarifies these issues.

Implications for Practice

Clarification of professional roles, cross training, and providing orientation to the field, are examples of methods for developing professional identities, as well as, clarifying service orientations that would be beneficial to the field. The lack of consensus of definition of service indicates that there are ambiguities related to the knowledge base and problems of practice which should determine curriculum priorities.

CONCLUSIONS AND THEIR IMPACT ON CPE PRACTITIONERS

The findings suggest changes in instructional design and the role of planners of CPE. These data indicate that CPE practitioners will be challenged to:

- Facilitate the clarification of the professional roles, knowledge base, and the problems of practice of the professionals for which they are programming
- Customize activities based on the needs (reasons) of the professionals being served
- Examine the variables affecting participation in educational activities in order to support the development of holistic approaches to educational program design for professionals.

This line of research is particularly important to emerging professions like the employment and training field in which the model for delivering education and training to members is still evolving. Holistic approaches to CPE program design call for new roles for continuing education practitioners. These roles include:

- Viewing the professional within the context of the profession and throughout the career of the professional

- Understanding the factors influencing the professional, i.e., society, the profession, and the organizational setting

- Understanding the interaction of the structural aspects of the work setting of the professionals

- Understanding the relationship between attitudes toward the profession as they relate to the reasons for participation in CPE. These factors have impact for the program design and the training model used by the profession

- Acknowledging that the reasons for participation, attitudes of professionals, and demographic characteristics of the profession have policy and planning implications for administrators of continuing professional education programs, units of government and the agencies that are responsible for funding and evaluating CPE activities.

Having a more complete understanding of the contextual variables influencing the learners in the professions enhances the potential for innovative instructional designs that create change and impact on systems, organizations, and the individual learners. Clearly researchers and practitioners have an opportunity to shape the directions in the field. By working together, practice and research are strengthened.

Recommendations for Future Study

Further research is recommended. Areas of focus should include research in the areas of reasons for participation, stages of professionalization of emerging professions, identification of competencies required among CE practitioners in their changing roles serving occupations in various stages of professionalization. Specifically recommended are:

- Examination of the stability of reasons for participation among the professionals in various professions to determine if and when various factors emerge or recede during the professionalization process. Are variations based on: (1) personal characteristics or (2) significant changes in the profession, i.e., related to certification, licensure, mandatory CPE or other reasons?

- Examination of the impact of career stage and the reasons for participation, i.e., including (1) age entering the profession, (2) changes in life roles, (3) organizational roles, (4) structure of the organization, and (5) practice setting. For example, what are the typical reasons for participation for each career stage? Do professionals in isolated practice settings or in flat organizations (with less room for advancement) have different reasons for participation?

Increased knowledge of the reasons for participation and the components of the professional model related to a particular occupation or emerging profession allows for instructional designs to be closer linked to the needs of the participants. With these data CPE practitioners can develop meaningful programming that will have an increased impact on the emerging profession and the public.

REFERENCES

Book, P.A. & Klevans, D.R. (1994). An overview of the program development process. Unpublished presentation for Penn State Continuing and Distance Education, University Park, PA.

Cevero, R.M. (1988). Effective continuing education for professionals. San Francisco, CA: Jossey-Bass Publishers.

Cevero, R.M. (1988). Visions for the future of continuing professional education. Athens, GA: The University of Georgia.

Childers, J.L. (1993). Assessing the reasons for participation in continuing professional education: A study of the relationship between attitudes, work setting and structure of a professionalizing occupation (Doctoral dissertation, University of Missouri, 1993).

Grotelueschen, A.D. (1985). Assessing professionals' reasons for participating in continuing education. In R.M. Cevero & C.S. Scanlan. (Eds.). Problems and prospects in continuing professional education. New Directions for Continuing Education, No. 27. San Francisco, CA: Jossey-Bass.

Grotelueschen, A.D., Kenny, W.R., & Harnisch, D.L. (1980). Research on reasons for participation in continuing professional education. Occasional Paper No. 5. Urbana, IL: Office for the Study of Continuing Professional Education, University of Illinois at Urbana-Champaign.

Hall, R.H. (1968). Professionalization and bureaucratization. American Sociological Review, 33, 92-104.

Vollmer, H.M. & Mills, D.L. (1966). Professionalization. Englewood Cliffs, NJ: Prentice Hall.

Wilensky, H. (1964). The professionalization of everyone? American journal of sociology. p. 70.

MAILING LISTS AS A VENUE FOR ADULT LEARNING

Mauri P. Collins

and

Zane L. Berge

ABSTRACT

Online public Electronic Discussion Groups (EDGs) are voluntary associations of adults where discussion via electronic mail is used for the exchange of information, thoughts and opinions. Research has been conducted on EDGs from a communications perspective but there is no indication in the literature that participants in non-academic EDGs consider them to be a venue for learning. An exploratory survey of one scholarly electronic discussion group (IPCT-L) was conducted to determine if a random sample of participants considered their participation as a learning experience. Results indicate a well-educated group who joined the list with a general interest in the topic and who get valuable information that helps them stay updated in their field. All respondents (who are members of from one to twenty-three other EDGs) agreed that "Increase in knowledge" is an general effect of participation in EDGs, and 51 of 54 respondents said they learned from IPCT-L incidentally, deliberately, or both at different times. This would indicate that EDG membership may enhance self-directed, any time, any place adult learning. This information can provide instructors with a rationale for decisions concerning the use of electronic discussion lists in their classes.

INTRODUCTION

There are over 10,000 public electronic discussion groups (EDGs) on the Internet where people "come together" asynchronously to discuss topics of mutual interest. These EDGs provide a forum in which participants can exchange, via electronic mail (email) information, argue, articulate ideas more clearly, try out new ideas, reflect on the inconsistencies in their own logic and in the observations of others, and discover multiple or varying perspectives on issues of interest to their group (Berge. 1994, p. 103; Hahn & Stout, 1994, p. 516). They can engage in discussion that can lead to creation, experimentation or discovery--a process that may lead to change--and to those activities such as reaching a collective dialogic wisdom (Berge 1994, p. 103).

It is our contention that such lists, especially those whose intended purpose is scholarly discussion, have much in common with other voluntary associations of adult learners (Harnack & Fest, 1964, Knowles, 1977) that have developed over the years. We suspect adults join EDGs to take advantage of opportunities for "enlightenment" which Brilhart (1974) describes as "a fuller understanding, a wider grasp of information pertinent to a topic, or consideration of a problem from as many points of view as possible" (p.117). While SDG members can articulate a purpose and intention to learn from the discussion; much incidental learning also occurs, and members derive many benefits, including keeping updated in their professional field, getting materials, getting answers, learning the medium, a sense of belonging, a chance to express themselves and networking for contacts. They may also use these groups as newsletters, to get and provide information, or to exchange ideas and experiences (Rojo, 1995).

LITERATURE REVIEW

ADULT LEARNING

Peterson (1979), making the distinction between *deliberate education* and *unintentional learning* in the Sources of Education and Learning (SEL) typology puts "schools, non-school organizations and individually used sources" into the domain of deliberate education (p. 14). Peterson claims that "unintentional adult learning is a fact of life for everyone; it is a concomitant of living. However, one can conceive of environments, particularly interpersonal environments, that are more stimulating than others and thus make for more frequent unintended learning" (p. 18). He adds that people learn without intending to, in what academic psychologists call *incidental learning*: "Learning, as the acquisition of new cognitive, affective, or motor response, is virtually synonymous with living (p. 64).

Some members contribute frequently to EDGs however, no individual is required to post comments as a condition of membership (except perhaps, on a few lists, an introduction). Most subscribers can, and often do, to use internet parlance, "lurk" (Newby, 1993, p. 34) and only listen/read, forming an large audience for the ongoing discussion. Such listening/reading can be a valuable activity in itself for apprentice scholars.

DISCUSSION

Discussion, as opposed to casual converstation or talk, is an important part of human interpersonal communication and is most often employed to achieve one of two basic purposes: learning (information-sharing and enlightenment) or decision making, or some combination of these two (Brilhart, 1974: Gulley, 1968). It is through discussion that one person can influence or persuade another or many others. Discussion provides an opportunity to articulate and explicate one's own thinking and perhaps to modify one's own ideas, beliefs or self-presentation in response to feedback from others. Incorporation of new data, the testing of arguments, and using one's judgment and reasoning helps move a person toward new ways, and higher levels of, thinking (Berge & Collins, 1995, p. 183). Brookfield (1990) notes that "discussion encourages active, participatory learning" (p.190) and helps learners explore their experiences so that they can become more critical thinkers. Discussion serves to "expose learners to a diversity of perspectives on an issue, topic or theme; help learners externalize the assumptions underlying their values, beliefs and actions; assist learners in perspective taking, and introduce learners to elements of complexity and ambiguity in an issue, topic or theme" (p. 192).

THE ONLINE CONTEXT

Participants in online scholarly discussion need only to have access to an internet-accessible electronic mail (email) program. Logistically, the "discussion" appears in participants' mailbox as a continuing series of email messages, and are replied to by sending an email message back to the mail handling software that automatically manages the mailing list, (i.e., an electronic form of internet mail distribution list similar to a magazine subscription list). Mail volume is usually manageable, but some lists receive many hundreds of posts a day (Harris, 1993). Once subscribed to a particular discussion group, a subscriber receives an email copy of every post distributed to that list, and from this can internally construct a "discussion" and sometimes, even a sense of "virtual community" (Quarterman, 1993; Rheingold, 1993).

SCHOLARLY DISCUSSION GROUPS

A SDG is a type of computer conference that functions as an electronic forum—a place to hold open discussions on questions of mutual interest (Harnack & Fest, 1964; Gulley, 1968). Kovacs et al. (1995) describe over 4,000 scholarly discussion groups that exist for discussion of the complete spectrum of academic interests and pursuits. While it appears that SDGs are rarely used for group decision making, participants exchange information and data, ask questions, share insights, and ideas (Berge & Collins, 1995). The outcome, hopefully, is increased understanding and the construction of shared meaning.

SDGs are groups formed as a result of voluntary association (Harnack & Fest, 1964). Some persons use SDGs to gather information, to explore different views of the same issues, much as they would a library. Other participants meet online with colleagues to informally discuss ideas, to promote creative thinking and to listen to others in much the same way as they do in person, by phone or at a seminar. Some members are highly involved, posting contributions daily, sometimes hourly, while others listen and only post a message when they believe their contribution is worthwhile (Berge & Collins, 1995) .

Rojo (1995) in her dissertation examined participation in a random sample of twelve scholarly electronic forums in terms of subscribers' adoption processes, purposes for participation, contribution rates and patterns of use and perceived benefits. Contribution was operationalized as 1) asks for information; 2) provides information; 3) asks complex questions; 4) responds to complex questions; 5) makes short comments; 6) makes elaborate comments. Benefits and modes of use werw operationalized as 1) keeping updated; 2) getting materials; 3) getting answers; 4) learning about the medium; 5) feelings of belonging; 6) possibility to express oneself; and 7) enhancing contacts. In her typology, IPCT-L would be a "stagnant" forum with few newcomers, few people leaving and a high proportion of old users. Most of the categories used in this survey were derived from those developed by Rojo.

MEANING-MAKING METAPHORS

As noted above, EDG discussion occurs in the form of an exchange of electronic mail messages among a group of subscribers and appears as text in an email message in their computer systems' representation of a mailbox. It is in the reading of these messages that the participants often construct metaphors to provide "a sense of familiarity and provide navigational and cognitive aids, helping to organize the interactions and set participant expectations . . . [they also] convey what is socially appropriate" (Harasim, 1993, pp. 29-30,, Newby, 1993) in the situation. Spitzer (1986) likens SDG communication to a slow motion panel discussion (which infers an audience) while others have likened it to a conversation being held in a room full of people, or some other informal face-to-face gathering, or a long and drawn-out after-dinner conversation. Scholarly discussion groups have been likened in function to a library, a public or academic meeting or having a newspaper or magazine subscription (Berge & Collins, 1995).

RESEARCH

The *Interpersonal Computing and Technology* (ipct-l@listserv.georgetown.edu) discussion group was chosen to serve as a case study because the authors are the listowners and familiar with the personalities, discussion and dynamics of that SDG (Berge & Collins, 1993). The survey was posted to the entire membership but initial response was low (21 responses). Those respondents were deleted from the list roster of 996 members in 49 countries (on July 29, 1996), which was then randomly sampled and private messages sent until an approximately five percent random sample was obtained. IPCT-L was started in February 1992 and was very active for almost three years (averaging 10--15 posts a day), until a leading discussant died suddenly. No one stepped forward to fill his role (Newby, 1993 p. 34) and as the listowner's interests had moved elsewhere, the list has become very quiet over the past year, with between 1 and 10 posts a week.

From the literature review above a electronic survey was constructed to investigate the list members' definition of their list membership and their definition of this SDG as a deliberate or incidental learning experience. Participants were asked their reason for joining; the benefits they felt they derived, the rate of their contribution and participation, the intentionality of their learning, the metaphors they used to frame the setting of the discussion, and their opinion of the perceived effects of participation in EDGs. The following demographics were collected: length of time on the list; and membership of other lists and gender; age; and educational level. From two prior electronic surveys, (of the *IPCT Journal* (Berge and Collins, in press) and the DEOSNEWS journal (unpublished)), the population had been described as more male than female, with more respondents in the 35-55 age groups.

FINDINGS

DEMOGRAPHICS

Fifty-five list members responded to the survey: 41 men and 14 women with 88 percent of those in the 36 to 55 age group. They were from eight different countries with the majority (69 percent) from North America. Eighty-seven percent of respondents had been a member of the list for more than a year. These were well educated persons with 16 percent having earned Bachelor degrees, 46 percent Masters degrees and 33 percent doctorates. They are also experienced list users with every respondent belonging to between two and more than 9 lists besides IPCT-L From prior research we can say this group closely represents the readership of IPCT-L who respond to electronic surveys.

INVOLVEMENT

Respondents were asked about their involvement with the list: 52 respondents read posts as they come, 70 percent saying they read posts daily, or weekly; that reflects the frequency of postings sent to the list. Respondents were asked how often they contributed by asking for and providing information, asking and answering questions, making short and elaborate comments, and sharing experiences. A range between 29 percent and 43 percent said they never contributed and a range between 23 percent and 43 percent said they contributed at least yearly. That reflects the frequency of the low level of current traffic on this list. Two years ago there would have been several posts in the same day by the same person, if they were one of the principal discussants on a current topic. The proportion of those who contribute is unusually large in this sample, as the general accepted ratio of "lurkers" to contributors is approximately 10:1 (Newby, 1993, p. 34).

Their top five reasons for joining IPCT-L:

89.0 % Generally interested in topic
49.1%. Looking for others interested in topic
40.0%. Looking for forum to share opinions
23.6%. Looking for job-related resources
21.8%. To develop/upgrade talents or skills

Their top seven benefits from their list membership:

83.3% I get information valuable to me
68.5% Staying updated in my field
51.9%. I can learn about list topic
50.0%. Exchange thoughts/ideas/opinions with others
40.7% I get materials I can use
37.0%. Professional development opportunities
33.3% Networking/making contacts

Their top three metaphors: What is this List most like?

70.4%. A ongoing small group discussion
40.7%. A series of private conversation(s)
40.7%. A ongoing panel discussion with an audience

Their top five effects of participation in Listserv Groups

100% Increase knowledge
85.5% Change perspectives/outlooks
74.5% Increase skills
69.1% Change attitudes

58.2% Reduce isolation/loneliness

Without trying to, one can learn (acquire new knowledge, skills and feelings about oneself) simply by undertaking different activities at home, at work, and at play. Is your learning from this discussion list:

29.1%	Mostly unintentional, incidental, just happens
10.9%	Mostly planned, deliberate, what I am here for
52.7%	Both, at different times
7.3%	I don't learn from this list

CONCLUSION

Once again: communication on EDGs appears as email messages that arrive in subscriber's private electronic mailboxes. Despite the fact there are actually almost 1000 members on the IPCT-L subscription list, the respondents framed discussion on IPCT-L as most like a small discussion group, a series of private conversations, or a panel discussion in front of an audience. This speaks to the sense of "intimacy" in communication that listeners/readers construct from the text messages arriving in their mail boxes from other list members.

While "generally interest in the topic" is the principle reason given for joining IPCT-L, subscribers were also seeking out others interested in the topic (49 percent) and looking for a forum in which to share opinons (40 percent). Particular benefits that participants derive from their membership include getting valuable information (83 percent) and staying updated in their field (69 percent), a matter of pressing concern to many academics, they can learn about the list topic (52 percent) and have an opportunity to "exchange thoughts, ideas and opinions" (50 percent), all functions similar to face-to-face discussion groups for enlightenment/learning.

All respondents agreed that one effect of participation in discussion groups is "increases knowledge" with 86 percent saying it also changes perspectives and outlooks; and 74 percent saying that it increases skills. Ninety-three (93) percent of respondents say that they do indeed learn from IPCT-L with 11 percent saying that is their plan and design for membership; 29 percent saying their learning from the discussion is incidental and 53 percent saying they learn both incidentally and deliberately at different times. This may well be for all the same reasons that discussion can be a good learning method in adult face-to-face groups (see above).

This study was limited in that the list purposely chosen for this case-study has a rich past history of wide-ranging and vigorous discussion. It is not so now. Most of the respondents (87 percent) had been members for more than 2 years and remembered the list in its hey-day. Several remarked they were responding to the questions on the basis of this remembered experience. This list has always attracted a high proportion of degreed scholars, and to the extent that old learning is a predictor of new learning (Brookfield, 1986, pp 5-6), the general agreement that IPCT-L is a "learning" place may be a function of this list and these respondents.

Before EDGs can be generally accepted as situations where lifelong learners seek out self-directed learning opportunities, further research is needed with more representative samples from many other electronic discussion groups that randomly represent the proportion of scholars to non-academics now using the Internet, and that are not deliberately framed as "scholarly" discussion groups.

SIGNIFICANCE FOR PRACTICE

Knowing the characteristics of SDGs in terms of their perceived value to adult learners, the advantages and disadvantages of such lists and the extent to which EDG membership may enhance self directed, any time, any place adult learning can provide instructors with a academically acceptable rationale for decisions concerning the use of electronic discussion lists in their classes. Such information can also frame the format and content of learning opportunities delivered to homes through the cable modems of the not-so-distant future.

REFERENCES

Berge, Z. L. (1994). Electronic discussion groups. *Communication Education*. 43(2), 102-111.

Berge, Z. L. & Collins, M. P. (in press). IPCT Journal Readership Survey. *Journal of the American Society for Information Science*

Berge, Z. L. & Collins, M. P. (1993). The Founding and Managing of IPCT-L: A Listowner's Perspective. *Interpersonal Computing and Technology: An Electronic Journal for the 21st Century* (1)2. Archived as BERGE IPCTV1N2 at listserv@listserv.georgetown.edu

Berge, Z. L. & Collins, M. P. (1995). Computer-mediated scholarly discussion groups. *Computers in Education*, 24(3), 183-189

Brilhart, J. K. (1974). *Effective Group Discussion*. (2nd ed). Dubuque, IA: Wm C. Brown.

Brookfield, S. D. (1990). Discussion. In M. W. Galbraith, (Ed.) *Adult learning methods: A guide for effective instruction.* Malabar, FL: Robert E. Krieger Publishing Company.

Gulley, H. E. (1968). Discussion, Conference, and Group Process (2nd). New York: Holt, Rinehart and Winston, Inc.

Hahn, H., & Stout, R. (1994). *The Internet complete reference.* Berkeley, CA: Osborne McGraw-Hill.

Harasim, L. M. (Ed.). (1993). *Global networks: Computers and international communication.* Cambridge MA: The MIT Press.

Harnack, R. V., & T. B. Fest. (1964). Group Discussion: Theory and Technique. New York: Appleton-Century-Crofts.

Harris, J. (1993). Freedom of the (Key) press: Internet-based discussion groups. The Computing Teacher. March: 52-55.

Kovacs, D. & The Directory Team, (Eds.). (May 1995). Directory of Electronic Journals, Newsletters and Academic Discussion Lists. (5th ed.). Office of Scientific and Academic Publishing, Association of Research Libraries: Washington, DC

Knowles, M. S. (1977). *A history of the adult education movement in the United States,* (rev. ed). Malabar, FL: Robert. E. Krieger Publishing Co.

Newby, G. (1993). The Maturation of Norms for Computer-mediated communication. *Internet Research*, 3(4), 30-38.

Quarterman, J. S. (1993) The global matrix of minds. In. L. Harasim, (Ed.).*Global networks: Computers and international communication.* Cambridge, MA: The MIT Press.

Rheingold, H. (1993). A slice of life in my virtual community. In. L. Harasim, (Ed.).*Global networks: Computers and international communication* Cambridge, MA: The MIT Press.

Rojo, A. (1995). *Participation in scholarly electronic forums.* Doctoral Dissertation, University of Toronto, Ontario, Canada. [Online] http://www.oise.edu/~arojo/

Mauri Collins, Research Associate,
Educational Systems Programming
Northern Arizona University,
Flagstaff AZ 86011-5751
mauri.collins@nau.edu

Zane L. Berge, Director, Training Systems,
University of Maryland Baltimore County
1000 Hilltop Circle
Baltimore, MD 21250
berge@umbc2.umbc.edu

Presented at the Eastern Adult, Continuing and Distance Education Research Conference, Penn State University, University Park, PA, October 24-26, 1996.

WHAT CAN MEN LEARN FROM WOMEN ABOUT ACADEMIC ADJUSTMENT TO COLLEGE? AN ANALYSIS OF THE FACTORS THAT CONTRIBUTE TO GENDER DIFFERENCES IN COLLEGE ADJUSTMENT

Sara Roberge Deely

Abstract: Research suggests that female adult college students are more successful academically than male students as measured by grade point average. (Malin, 1980) The purpose of this research was to identify some of the factors that contribute to the differences in academic adjustment between male and female adult college students as measured by grade point average. Factor analysis regression scores were created to represent the four sub-scales on the Adult Student Adjustment to College Inventory (ASACI). Statistical analysis revealed that female students had higher scores than male students on all four of these indices of student adjustment measured. Analysis of variance procedures indicated that these differences were statistically significant. This research supports the premise that there are indeed gender differences in adult student adjustment to college and extended this line of inquiry by identifying four factors that may contribute to these gender differences.

INTRODUCTION

Research suggests that female adult students tend to be more successful in adjusting academically to college than male adult students. (Malin, 1980; Warren, 1994) For the purpose of this research academic adjustment was measured by student grade point average. The objective of this research was to identify some of the factors that contribute to the greater academic success that women enjoy. This research was conducted in order to extend the practical and theoretical knowledge of the process of the adult student adjustment to college and to identify some of the factors that contribute to gender differences in this process. The findings of this research can also be used by practitioners and theoreticians to understand, facilitate and enhance both male and female student adjustment to college.

RELEVANT LITERATURE

The investigator conducted a selective review of the literature on adult socialization theory, social role theory, symbolic interaction theory, gender role socialization theory, and student adaptation research. Gifford (1992) reported that as many as 43% of all current students pursuing undergraduate degrees are 25 or older. The population of those students over the age of 30 has doubled to 3,000,000 over the past 20 years. By the year 2,000 this same population is expected to grow by 16% while the traditional age student population is predicted to remain relatively constant (Gifford, 1992). Role theorists view socialization as "a process of acquisition of appropriate norms, attitudes, self-images, values, and role behaviors that enable acceptance in the group and effective performance of a new role" (Mortimer & Simmons, 1978, p. 430) Adult student adjustment to college can best be described as an annexation of a role to an often full role set. Adults typically live both physically and socially outside of the college environment when they are not attending class, but they still enact the role of student. According to Bee, there is an abundance of empirical evidence supporting the idea that when role number increases for the adult, role conflict and strain result. This is often accompanied by a "decline in the skill which each of the person's roles is fulfilled" (1987, p. 162). It is almost a paradox that adult students still tend to achieve in school and that female adult students have even higher achievement levels than male students. This idea is salient in any study concerning how an adult student adjusts or adapts to the role of student. Adult students are, by definition, adding a new role, that of student. Attending school for adult students entails much more than the actual act of attending classes since their lives must often be managed and altered in order for them to perform the new role of student. Possibly, those adult students who are able to effectively enact the role of student possess skills that enable them to manage the many attendant challenges.

MODEL OF ADULT STUDENT ADJUSTMENT TO COLLEGE

The proposed model of adult student adjustment to college is based on the Bruning, Schraw & Ronning model of metacognition (1995). Each componenBAD BAD
BAD BAD BAD BAD
BAD BAD BAD BAD
BAD BAD BAD BAD
BAD BAD f the student's goal orientation
(Goal Commitment Sub-scale), 4.) Conditional Knowledge- knowing when to use a particular strategy, 5.) Evaluation- outcomes assessment of the results of the strategies utilized by the student during the process. (Satisfaction Sub-scale, Student Self-efficacy Sub-scale). The adult student adjustment to college inventory (ASACI) is conceptually grounded in this proposed model.

THE INFLUENCE OF GENDER ON SOCIAL ROLE ANNEXATION

Many of the differences between men and women are a result of culture. This study, naturally, focuses on those cultural standards present in America. Of course, gender differences are the interaction of biophysical, cultural and psychological factors. In 1971 Bardiwick asserted that:

> Women tend to esteem themselves only insofar as they are esteemed by those they love and respect. Unlike the man, who is considered successful when he has achieved within his occupation, the women who achieves is generally not considered successful unless she also has a husband and children. (p. 158)

Although this psycho-social dynamic may be less salient today, it is still a prevalent mode of thinking that drives even so-called career women to expend great amounts of energy in an attempt to "have it all." In fact, most women do not trade careers for motherhood, they just extend their work day by adding work outside the home to their domestic chores. Women continue to strive to fulfill their affiliate role demands while simultaneously pursuing the male ideal of success. (Davidson & Gordon, 1979) "For every hour that fathers spend actively engaged with their children, mothers spend three to five hours (Lamb, 1987). Also, within the family women tend to be the planners, schedulers, organizers, and delegators of daily tasks (Bird & Melville, 1994) These are skills that may be very useful in adjusting to the role of student. Often achievement has different meanings for men and women. Bardiwick (1971) believes that men perceive the motives of achievement and achievement as discreet while women have a much more integrated view and see them as interrelated. These differences may also be present in the educational orientations of male and female college students.

METHODOLOGY

Survey data collected from 238 graduates of an evening adult baccalaureate degree program at a large Northeastern research institution was analyzed. An inventory developed expressly to measure adult student adjustment to college was used to collect the data. The idea of academic adjustment was operationally defined as student grade point average. The Adult Student Adjustment to College Inventory (ASACI) was used to compare male and female academic adjustment to college on the outcome variable of grade point average at graduation and on the four indices that are positively correlated with student grade point average. The instrument is both reliable (alpha=.84) and valid as a measure of adult student academic adjustment to college. Concurrent validity has been established for the instrument by correlating the instrument with student grade point average (r=.50). . Descriptive inferential statistics using SPSS (Norusis, 1994) were used to analyze the data. In order to identify some of the factors that contributed to the differences between male and female student academic adjustment the data was analyzed by comparing the mean factor analysis regression scores on each of the four sub-scales measured by the inventory: a. Student Self-efficacy Scale, b. Goal Commitment Scale, c. Time Management Sub-scale, and d. Student Satisfaction Sub-scale. The mean scores on the inventory and the mean grade point average of males and female were also subjected to a comparative analysis. Analyses of variance were conducted in order to determine if the differences between men and women on all factors were statistically significant.

RESULTS

Statistical analysis revealed that there are significant differences between the mean values of male and female respondents on all of the indices analyzed. (Tables 1-9) Statistically significant differences were found between males in females on all indices: a.) Student Self-efficacy Sub-scale (F= 4.59, p=.03), b.) Goal Commitment Sub-scale (F=6.9, p=.009), c.) Time Management Sub-scale (F=.59, p=.44), and d.) Student Satisfaction Sub-scale (F=7.11, p=.008). Female adult students had higher mean values on all of the measures including grade point average in which the male student mean grade point average was 2.9 while the female mean was 3.1 (F=10.57, p=.001) A comparative statistical analysis conducted on the full inventory revealed that the mean score for female students was 65 while the mean score for male students was 62 (F=4.74, p=.03).

Table 1

Analysis of Variance of Inventory Sub-scale Goal Commitment by Gender

Source	Sum of Squares	Degrees of Freedom	Mean Square	F	Sig.
Between Groups	6.7908	1	6.7608	6.9	.009
Within Groups	226.2392	232	.9752		

Table 2

Analysis of Variance of Inventory Sub-scale Satisfaction Gender

Source	Sum of Squares	Degrees of Freedom	Mean Square	F	Sig.
Between Groups	6.932	1	6.9	7.11	.0082
Within Groups	226.06	232	.9744		

Table 3

Analysis of Variance of Inventory Sub-scale Self-efficacy by Gender

Source	Sum of Squares	Degrees of Freedom	Mean Square	F	Sig.
Between Groups	4.5235	1	4.5235	4.5235	.0331
Within Groups	228.47	232	.9848		

Table 4

Analysis of Variance of Inventory Sub-scale Time Management by Gender

Source	Sum of Squares	Degrees of Freedom	Mean Square	F	Sig.
Between Groups	.5952	1	.6952	.5941	.4416
Within Groups	232.40	232	1.00		

Table 5

Mean Grade Point Average at Graduation by Gender

Respondents	Mean	Standard Deviation	Cases
Male	2.9	.5178	98
Female	3.1	.5101	135
All Respondents	3.0	.5238	233

Table 6

Analysis of Variance for Grade Point Average by Gender

Source	Sum of Squares	Degrees of Freedom	Mean Square	F	Sig.
Between Groups	2.7879	1	2.7879	10.57	.0013
Within Groups	60.87	231	.2635		

Table 7

Mean Score on the Inventory by Gender

Respondents	Mean	Standard Deviation	Cases
Male	62.78	10.03	98
Female	65.76	10.41	132
All Respondents	64.49	10.34	230

Table 8
Analysis of Variance of Mean Score on the Inventory by Gender

Source	Sum of Squares	Degrees of Freedom	Mean Square	F	Sig.
Between Groups	499.2760	1	499.2760	4.74	.03
Within Groups	23986.2197	228	105.202		

Table 9
Correlation Coefficient Matrix

	Efficacy Scale	Goal Scale	Satisfaction Scale	Time Scale	Score
Efficacy Scale	1.0	.52	.38	.30	.71
Goal Scale	.50	1.0	.34	.48	.76
Satisfaction Scale.	.38	.34	1.0	.17	.52
Time Scale	.30	.48	.17	1.0	.74
Inventory Score	.71	.76	.52	.74	1.0
Grade Point Average	.57	.50	.15	.28	.50

DISCUSSION

The term self-efficacy which was used for the Self-efficacy Sub-scale was, of course, borrowed from Bandura (1986). The entire process of the model proposed is continuous and cyclical. Although the factor of grade point average at graduation was used as an outcome variable, during the process of adjustment to college grades serve as an intervening variable and may moderate performance. Feedback provided to students in the form of grades also moderates the Self-efficacy Sub-scale, Satisfaction Sub-scale and indeed all sub-scales on the inventory. All of the factors appear to be intercorrelated as is evidenced by the correlation coefficient matrix provided (Table 9) The proposed model of student adjustment is cyclical and each aspect of the model theoretically has a moderating effect on all of the other aspects of the model. There are many opportunities for intervention inherent in the process of adjustment to college.

CONCLUSION

This study supports and extends the link between self-efficacy and academic performance which has been reported on by Lent, Brown & Larkin (1986) who studied 105 undergraduates and found that both grades and persistence were moderated by self-efficacy. In fact, "The major findings of this study supported and extended previous results showing that self-efficacy expectations are related to indices of academic performance behavior" (p. 268). This research also suggests that perhaps there are gender differences in the process of adult student adjustment to college. Female adult students had higher scores on all of the six variables analyzed. Further, the total inventory (ASACI) as well as each sub-scale of the inventory used is positively correlated with grade point average.

****
****
****
****
** affiliation and achievement and

accustomed to meeting affiliate role demands while simultaneously pursuing the male idea of success. This may provide a partial explanation for the female advantage. The researcher is currently testing this model and measure at a community college and another four year institution in New Jersey and further analysis of the factors that contribute to differences in academic achievement are currently under investigation.

References

Bardiwick, J. M. (1971). Psychology of women. New York, New York. Harper and Row.

Bee, H. L. (1987). The journey of adulthood. New York, New York. Macmillan Publishers.

Bird G. & Melville, K. (1994). Families and intimate relationships. New York, New York. McGraw-Hill, Inc.

Davidson & Gordon. (1979). The sociology of gender. Chicago, Illinois. Rand McNally.

Deely, S. R. (1995). The adult student adjustment to college inventory. Ann Arbor, Michigan. UMI Dissertation Services.

Gifford, B.R. "Coming back to campus". The Chronicle of Higher Education. August 1992.

Lamb, M.E. (1987). Social stratification. In M.B. Sussman & S.K. Steinmetz (Eds.), Handbook of marriage and the family (pp. 211-249). New York: Plenum.

Malin, Bray, Dougherty & Skinner. (1980). "Factors affecting the performance and satisfaction of adult men and women attending college" Research in Higher Education. 13 (2), p. 115-130.

Mortimer & Simmons. (1978). "Adult socialization". Annual Review of Sociology. Vol. 4, p. 421-54

Norusis, M.J. (1994). SPSS for windows. Chicago, Illinois. SPSS Inc.

Sara Roberge Deely, Ed.D. 24 Corkery Lane Williamstown, NJ 08094

Acknowledgment: The author would like to offer her gratitude to Dr. Gordon G. Darkenwald for his support and superior guidance during the duration of this research project.
Presented at the Eastern Adult, Continuing Education Research Conference, Penn State University, University, PA, October 24-26, 1996.

EXPERIENCES OF HIGH SCHOOL SENIORS, TEACHER, AND ADMINISTRATORS IN A DISTANCE LEARNING CALCULUS COURSE

Margaret E. Downs

ABSTRACT

This study examined the experiences of high school seniors, teacher, and administrators in a distance learning calculus course taught in Central New York. The study described the perceptions and views of college distance study high school students, their distance study high school teacher, and distance study high school administrators. The study also looked at how this study fits into a larger societal context. The specific qualitative methods used were interviews, observation, and document analysis.

The findings had three major themes: drawbacks, benefits, and teacher's style. Benefits to two-way audio and video distance education courses were the ability to videotape the class for absent students, course offerings for rural school students, and the use of Elmo, a document camera, during class time. Drawbacks were that students and teacher showed a preference for face-to-face interactions over distance interactions and the loss of time, as compared to the same course in a traditional classroom, was found to be a product of technical difficulties with technology such as the fax machine and the cameraman. The teacher's style was acknowledged as an important contributing factor to the success of students' learning.

> Probably the most important feature of studies within this alternative paradigm [illuminative evaluation or holistic studies], rather than merely qualitative- quantitative distinctions, is a philosophical position. [Instead of] seeing the individual learner in terms of mechanistic models, the complexity of the student and his or her ability to reflect upon experience are recognized. (Morgan, p. 254, 1984)

INTRODUCTION

In the quotation above, Morgan (1984) mentions "illuminative evaluation," which was used to describe research that attempted to document what is "really going on" in an educational setting. Similarly, this study aimed its investigative strategies at identifying the experiences of students, teachers, and administrators in a school-university partnership distance learning course to find out what was really going on in the classrooms. Specifically, the Syracuse University Project Advance (SUPA) Calculus Course was offered to three high school classrooms through the use of two-way audio and video distance learning technology where one classroom was the "home" site and the other two were "receiver" sites. The Calculus Course was offered prior to adding distance technology as a medium and had been evaluated as having had successfully achieved its goals. The primary focus was not on the curriculum, but rather on the experiences of the distance learning participants and the positive and negative influences on learning in this particular context. The findings indicate that the benefits out weighed the drawbacks in distance learning and that the teacher's style was particularly influential in the students' positive experiences.

BACKGROUND

Traditional (K-college) and non-traditional (part-time college and business training) students of all ages are increasingly using some form of distance learning (Moore & Kearsley, 1996). The New York State Education Department's Instruction and Program Development Team Report for the "1993-1994 School Basic Educational Data System Survey," observed that 10% (400) of 3,906 K-12 public schools were using distance learning in the classroom for instruction. The report also noted that the New York Board of Cooperative Education offered distance learning in 22 of their 38 sites (Radlick, 1994). Institutions are becoming attracted to the notion that large numbers of students and difficult to reach students can be taught through technology by making distance courses accessible. Therefore, it is important to understand how the nature of distance education impacts K-12 students within their environment.

Distance education and teaching with distance technology, as a technological and teaching innovation, has been defined in many contexts. For the purposes of this study, distance education courses are defined as an appropriate technical medium, such as two-way video and audio, used to deliver the planned and systematic activity comprised of instructional materials as well as the supervision and support of student learning (Keegan, 1986). This definition was used because it includes the important preparation and activities necessary to create a supportive learning environment as well as the appropriate technical medium to support the teacher and the learner. Distance learning is much more than using technology to teach conventional courses. The interaction with the technology while implementing a curriculum introduces a variety of new components to teaching in any context, such as various technology, administrative, teaching, and instructional support issues. "For secondary students, a distance education class may provide the only means of receiving a particular class or specialized course of study" (Willis, 1994, p. 51). Reaching areas that are geographically challenged with college course offerings is the goal to which many rural school districts aspire due to reasons such as: (a) the necessity, otherwise, of giving their teachers additional training, (b) addressing duplication of curriculum issues by offering additional courses, and (c) giving seniors a challenge to help deal with the boredom of the last year of high school, known as "senioritis."

SUPA Distance Learning. Syracuse University Project Advance (SUPA) is a partnership program linking the University and secondary schools. Its primary mission is to offer qualified high school students the opportunity to enroll in Syracuse University (SU) freshman courses during their senior year of high school. SUPA offered a calculus course (Mat 295/296) via a distance education program using two-way television on a fiber-optic network. The primary teaching site and two distance sites for the calculus course were in a Central New York (CNY) high school classroom that has been equipped with distance education technology by the Otsego County Board of Cooperative Educational Services (BOCES). The distance education component was funded by BOCES to be added to a successful SUPA college course credit program. These efforts sought to provide college course and college level opportunities for students who otherwise would not have the opportunities because of their geographical location.

RATIONALE

The study was shaped by gathering descriptive information on and asking questions of a specific distance education project. They were:

- To examine the perceptions and views of college distance study high school students
- To investigate the elements of a distance learning experience for the college level high school students
- To examine the perceptions and views of the college distance study high school teacher
- To examine the perceptions and views of college distance study high school administrators
- To investigate the nature of two-way television distance learning and to examine the advantages the distance course offers, as well as the problems it initiates.

LITERATURE REVIEW

In the previous section, the background and rationale were discussed. This section outlines themes and findings of academic scholarship in distance education, media versus medium, and distance education in secondary schools. These areas provided the relevant literature with which to frame this study in a larger context. They showed the linkages from the evolution of distance education through research on and current use of distance education in the secondary school context.

DISTANCE EDUCATION

As early as 1728, teaching at a distance began with an advertisement in the Boston Gazette for weekly lessons of various courses (Holmberg, 1995, p. 48). Anna Eliot Ticknor, daughter of a Harvard University professor, founded and ran the Boston-based Society to Encourage Study at Home from 1873 to 1897. On a monthly basis, Ticknor exchanged letters with her students containing guided readings and frequent tests (Holmberg, 1995, p. 48). Today there are entire universities that are dedicated solely to providing educational opportunities from a distance.

Schlosser and Anderson (1994) provided a comprehensive summary and best estimate of the literature review of research conducted on distance education and its limited generalizability. Overall, research shows that distance education is an effective method for teaching and learning. Schlosser and Anderson (1994) stated that consideration of the use of distance education should be based on curriculum enrichment, cost effectiveness, and availability of alternative forms of instruction (p. 28). However, other considerations in distance study are the appropriate type of media versus medium (or instructor) which focus on classroom dynamics and student-instructor relationships.

MEDIA VERSUS MEDIUM

Rather than focusing on the instructor, the question of whether and how media influence learning began in the early 20th century. Subsequent dialog in education research shows that instructional methods can be enhanced by media, but that the use of media in instruction does not necessarily promote better student achievement. Since Thorndike (1912) recommended pictures as an aid to instruction, education research has focused on studies that review how media influences learning. Typically, studies have compared the relative achievement of groups who have received similar subject matter from different media. "This research has led to so-called 'media selection' schemes or models (i.e., Reiser & Gagne, 1982). . . Most of these models base many of their perceptions on presumed learning benefits from media "(Jamison, Suppes,&Eillis, 1974, in Clark, 1983, p. 445). However, Clark (1983) stated that do not directly influence learning. Instead, studies show that the instruction and curriculum were the cause of change.

Clark (1991) discussed "the learning from media argument" that was initiated by his statement that media are, in part, "mere vehicles that deliver instruction but do not influence student achievement any more than the truck that delivers our groceries causes changes in our nutrition" (Clark, 1983, p. 445). Clark (1983) provided evidence to support the hypothesis that instructional methods have been confounded with media. He concluded that methods influence learning. Also, teaching methods could be designed for a variety of instructional media presentations. Salomon (1984) argued that media contributions provided a unique contribution to instruction. He claimed that it was not the medium (instructor or methods) that influence learning but instead certain attributes of media that facilitate the developed of unique "cognitive processes" for the learner (Clark, 1991). Clark's response was, "My problem with the media attribute argument is that there is strong evidence that many very different media attributes accomplish the same learning goal. . . and so no one media attribute has a unique cognitive effect" (Clark, 1991, p. 35). Thus, Clark built a case not for eliminating media, but rather for focusing on instructional medium (the instructor) or methods to achieve instructional goals and objectives. This study's findings confirm that students' learning was not affected by the technology, as they had stated, but rather the teacher's style.

DISTANCE EDUCATION IN SECONDARY SCHOOLS

Research on distance education at the secondary level suggested that learner response is varied. At one distance learning site, 70% of the students surveyed indicated a preference for traditionally delivered courses where student-teacher interactions occurred face-to-face. Student reasons given for this preference were: too much work, some difficulty in contacting the teacher, and inadequate teacher preparation and training. However, the students also said they appreciated the increased number of course offerings (Willis, 1994, p. 51). At another site, the Midlands Consortium Star Schools Project, found that students felt that the overall experience was positive even though they occasionally felt frustrated because of the distance between them and the instructor (Willis, 1994, p. 52). Similarly, the participants in this study acknowledged the benefit of the course, but missed face-to-face interactions between the teacher and students.

In the 1990s, the use of distance education technology has reached all age groups. Traditionally, the greatest percentage of distance students have been adults (Garrison, 1989). However, that tradition is changing. (Schlosser & Anderson, 1994, p. 37). Primary and secondary schools are increasingly being offered the opportunity to experience distance education in a variety of ways.

METHODS

The methods used in this study were qualitative, primarily influenced by symbolic interactionism (Blumer, 1969) and the constant comparative method. As described by Bogdan and Biklin (1992), the constant comparative method looks for key issues, recurrent events, or activities in the data that become categories of focus for coding, then the analysis keeps doubling back to more data collection and coding until the final written analysis is completed. The descriptive information in this study was collected through documentation analysis/review, observation, and interviews with teacher, students, and administrators. After the first interviews, the data were analyzed and theory developed, then another set of interviews were conducted repeating the cycle--interview, analyze, theory development--until the research was completed (Bogdan & Biklin, 1992). The qualitative methodology was chosen for the reason that it extracts the meaning of relevant issues through the perceptions of the participants, observations, and document analysis.

RESULTS

Symbolic interaction analysis and the constant comparative method revealed three major categories: drawbacks, benefits, and teacher's style, as primary concerns in a distance education course. The teacher was referred to by a pseudonym to protect her identity.

Schools. The three schools are located in small rural towns in Central New York. The student populations for 1995 were 169, 982, and 1,228. The administrators' primary interests in distance education courses were to be able to offer more challenging courses and college level courses to students who were "very capable students," and because it is cost-effective for the rural schools. *Classroom.* The "conventional" or "traditional" classroom consisted of 25 student desks and chairs, a teacher's desk and chair, a chalkboard, and large windows. The "distance education" classroom consisted of six tables large enough for two students to be seated, twelve chairs, and each table had a microphone to which it was attached. The teacher's desk was without a chair and at the corner in the front of the room. The teacher's desk supported the technology control box, which controlled all the audio and camera settings for the six TV monitors in the home site classroom, and it supported the document camera, or Elmo as it was called. Elmo showed any documents placed on it to the class much like an overhead projector, except it was projected on one of the TV monitors at each site. The fax machine was located behind the teacher's desk, and the VCR was located in the cabinet holding the three monitors next to the teacher's desk. The three TV monitors next to the teacher's desk showed the students the other two classrooms and the teacher or Elmo, depending on where the teacher had the controls set. The teacher was followed by the cameraman at the back of the room located on top of the three TV monitors, which showed the teacher the same transmissions as were shown on the students' TV monitors. The technology control box at the teacher's desk contained the controls for the cameraman and audio system so that the teacher could adjust the monitors as necessary. There were 3 students at two sites and 5 at the other. Distance learning classes in rural schools are typically small because they have a small target population.

DRAWBACKS AND BENEFITS

The participants acknowledged a number of drawbacks in a distance learning class. The drawbacks included lost time in general, lost time due to faxing assignments, extra time for technology issues, face-to-face interactions, technical difficulties, and student privacy. While there were some drawbacks noted by the participants, they also acknowledged a number of benefits. The benefits discussed included: extra help time, course offerings, Elmo, and videotape.

TEACHER'S STYLE

The teacher's style was separated from drawback and benefits because it could be either. The teacher in this distance education course was stated by the participants as a benefit. The teacher has 22 years of experience teaching and a M. S. in Education in the field of mathematics. She has continued to take college courses to remain current with new developments in education and mathematics. When describing the distance education classroom, Mrs. Fay stated:

> I think it's important for the students to be involved. How do I get them involved? I ask them a lot of questions. It's not a hand raising call on kind of situation. We speak if we have a question to ask, we answer when we have something to offer, and although that sounds as though it can get chaotic, it doesn't really. . . . I try to keep it as interactive as I can. (Teacher)

The teacher replaced the "hand raising" tradition with asking more questions of the students and allowing the students to freely ask questions. The teacher's style, as described by all participants, was an "interactive style." The students and administrators said the teacher was "organized," a "good teacher," and "teaches very well."

CONCLUSION, IMPLICATIONS AND RECOMMENDATIONS

Although the findings of this study are limited in generalizability, they reveal distance learning areas in need of further investigation. Three broad themes were drawn from the data and analyzed: drawbacks, benefits, and teacher's style. Further analysis of these themes facilitated sorting the data into more specific categories. The salient categories that speak to future implications for distance learning classes are the ability to videotape class, the teacher's style, learning with technology, time issues with technology, and increasing course offerings in small rural schools.

1. *The ability to videotape class* provided the opportunity to add more teaching aids in the classroom, such as the ability for the students to watch repeatedly a lesson they could not see, hear, or understand; the ability for students to be absent from class and yet receive the missed lesson on videotape; and the ability for a teacher to watch his/her teaching style. Further investigation into each one of these aspects of using videotaping in the classroom could be used to further benefit students' and teachers' learning processes with further research. 2. *Teacher's Style.* The teacher's style was noted as an extremely important aspect of the distance learning class. Administrators and teachers should recognize the unique demands such classes place upon teachers. These demands include time for teachers to adapt to new technology and adapt their styles to reach students with which they cannot have face-to-face interactions. The findings suggest some teaching styles are more compatible with distance education than others and should be investigated further. 3. *Learning with Technology*. The students stated that the distance aspect of the course did not make a difference in their learning which supports Clark's (1983) research.
4. *Time Issues With Technology.* The "time" issues with the technology centered on the loss of time the teacher and students were accustomed to having in a "traditional" classroom setting. The time was lost to the "extra time" required for the technology issues. The time-consuming technology issues included the set-up time for class, different class schedules at receiver sites, faxing assignments, students' privacy,

time for extra help, and technology difficulties, such as audio feedback, cameraman technology malfunctioning, and microphone malfunctioning. The preparation time requirements of the teacher and administrators were greater than anticipated and should be noted for future distance education offerings. 5. *Increased Course Offerings*. The goal of distance education is to increase course offerings to small and rural school districts. This goal was achieved and overall, the participants were reportedly pleased..

The present study focused on the experiences of the teacher, students, and administrators in a distance education course. The findings specific to the use of technology in the classroom revealed the importance of planning to save time and student schedule organization, teacher's style, videotaping, and providing additional course offerings to high school students in distance education. The new technology and new distance education classroom environment that distance learning engenders is an opportunity to challenge teachers and administrators, and help them to grow within their own profession for the benefit of themselves, their students, and rural communities.

REFERENCES

Blumer, H. (1969). Symbolic interaction. Englewood Cliff, NJ: Prentice Hall.

Bogdan. R., & Biklen, S. (1992). Qualitative research for education. New York: Allyn and Bacon.

Clark, R.E. (1983). Reconsidering research on learning from media. Review of Educational Research, Winter, 53,445-459.

Clark, R.E. (1991). When researchers swim upstream: Reflections on an unpopular argument about learning from media. Educational Technology, 21l(2), 34-40.

Garrison, D.R. (1990). An analysis and evaluation of audio teleconferencing to facilitate education at a distance. The American Journal of Distance Education, 4(3), 13-24.

Holmberg, B. (1995, June). The evolution of the character and practice of distance education. Open Learning.

Jamison, D., Suppes, P., & Welles, S. (1974). The effectiveness of alternative instructional media: A survey. Review of Educational Research, 44, 1-68.

Keegan, D. (1986). The foundations of distance education. London: Croom-Helm.

Moore, M. G. (1989). Three types of interaction. The American Journal of Distance Education, 3(2), 1-6.

Moore, M.G & Kearsley, G. (1996). Distance education: A systems view. New York: Wadsworth Publishing Company.

Morgan, A. (1984). A report on qualitative methodologies in research in distance education. Distance Education, 5(2), 252-267.

Radlick, M. (1994). Instruction and Program Development Team 1, New York State Education Department. Albany, NY. Report from the 1993094 School Basic Educational Data System Survey.

Reiser, R., & Gagne, R. (1982). Characteristics of media selection models. Review of Educational Research, 52(4), 499-512.

Schlosser, C.A., & Anderson, M.L. (1994). Distance Education: Review of Literature. Washington, DC.: Association for Education Communication Technologies.

Salomon, G. (1984). Television is easy and print is "tough": The differential investment of mental effort in learning as a function of perceptions and attributions. Journal of Educational Psychology, 76(4), 647-658.

Thorndike, E.L. (1912). Education. New York: Macmillan.

Willis, B. Ed. (1994). Distance education strategies and tools. Englewood Cliffs, NJ: Educational Technology Publications.

Margaret E. Downs, Syracuse University Project Advance - mdowns@advance.syr.edu

Presented at the Eastern Adult, Continueing and Distance Education Conference, Penn State University, University Park, PA, October 24-26, 1996

·ADULT EDUCATION'S ROLE IN THE POSTSECONDARY EDUCATION AND EMPLOYMENT OF PEOPLE WITH DISABILITIES

David A. Du Bois, PhD and Mary G. Klinger, PhD

SUMMARY OF PRESENTATION

Despite the passage of the Americans with Disabilities Act in 1990 and its predecessor, the Rehabilitation Act of 1973, less than two-thirds of people with disabilities are employed. Although there are differences in supporting data that suggests that the number of severely impaired people with disabilities who are unable to work ranges from as few as 15% to one-third of the population, the vast majority of people with disabilities are not employed. In addition, despite initiatives to foster the successful transition of people with disabilities to post-secondary education and subsequent employment, evidence clearly indicates that these transition programs are only partially successful.

This presentation will disseminate information gained from a "Community Forum on the Employment of People with Disabilities" that was held in Rochester, NY, March 15, 1996, under the sponsorship of SUNY Empire State College. The forum brought together members of the business community, human resource processionals, employers, assistive technologists, post-secondary educators, human service professionals, and people with disabilities to share information and trends. John A. Lancaster, Executive Director, President's Committee on the Employment of People with Disabilities, was the keynote speaker and responded to the ideas presented. Participants discussed barriers to employment as well as successful strategies. One of the main themes was the role that postsecondary adult education can play in fostering the initial employment of disabled adults and their ongoing career advancement. A series of round table discussions considered strategies and innovations. The data from these round table discussions has been interpreted in view of existing research and trends and will be disseminated in this presentation. Prior research, the ongoing research of the presenters on facilitating education opportunities for individuals with disabilities and the data gained from the community forum has been synthesized for this presentation. In addition, the critical role of workplace training for disabled employees is discussed.

CONCLUSIONS

This research will present conclusions about the issues that adults with disabilities face in pursuing postsecondary education, securing employment, and continuing their education and career progression once employed. This presentation suggests how adult educators can contribute to the successful education and employment of people with disabilities by making programs accessible, incorporating technology and non-traditional methods, and through distance learning. The restructuring of entitlement programs creates new challenges to increase the participation of disabled adults in education. Training initiatives provide the opportunity to foster career advancement. Consistent with its rich history, postsecondary education can meet the unique needs of adults with disabilities through self-advocacy training, the effective use of internships, implementation of strategies to provide inclusion, sensitivity and awareness training, and modifications of continuing education and training activities.

David A. Du Bois, PhD, Mentor, SUNY Empire State College, 8 Prince St., Rochester, NY 14607
Mary G. Klinger, PhD, Mentor, SUNY Empire State College, Houghton House 22 West Third Street Corning, NY 14830

Presented at the Eastern Adult, Continuing and Distance Education Conference, Penn State University, University Park, PA, October 24-25, 1996.

CRITICAL THINKING, DEVELOPMENTAL LEARNING, AND ADAPTIVE FLEXIBILITY IN ORGANIZATIONAL LEADERS

Robert Duchesne, Ph.D.
Adult and Human Resource Education
University of Connecticut

ABSTRACT

Organizational leaders in today's global marketplace must continually make decisions, solve problems, and chart effective courses of action to ensure that their companies survive and flourish. The ability to think critically is essential for today's leaders, yet leaders are often unable to do so. Research and theory indicates that leaders who think critically have persevered through challenging developmental learning experiences such as starting an operation from scratch or making a serious business error. Leaders who adaptively flex their learning style learn more from each challenging workplace learning experience. This study examined how developmental learning and adaptive flexibility affect the level of critical thinking in a sample of organizational leaders. Results showed years of education to be the only significant predictor of critical thinking in the leaders studied, and that executive-level leaders have had more developmental learning experiences than mid-level leaders. Adaptive flexibility scores indicate minimal levels of reflective observation, suggesting decision-making may become automatized for these leaders. The factor analysis of developmental learning experiences identified several factors that characterize the developmental learning of the leaders studied. None of these factors were significant predictors of critical thinking ability. The theoretical and practical significance of the findings are discussed.

INTRODUCTION

CRITICAL THINKING

Critical thinking is reasonable, reflective thinking that is focused on what to think or do. It requires an ability to recognize problems, gather pertinent information, interpret data, appraise evidence, and to evaluate lines of thinking, points of view, and personal insights that might contribute to the framing of logical, effective, reality-based action (Pierce, 1990). Research on critical thinking describes how individuals think about and solve complex problems. Critical thinking cuts to the heart of effective managerial work. A leader with critical thinking abilities will make better decisions and effect action of enlarged scope and heightened quality (Neumann, 1989).

WORKPLACE DEVELOPMENTAL LEARNING EVENTS

John Dewey's (1916) early work on cognitive development suggests that challenging and/or disorienting experiences stimulate the development of thinking ability. In numerous studies of successful leaders researchers at the Center for Creative Leadership (CCL) in Greensboro, NC, have determined that developmental learning occurs primarily through work experiences, not in formal training programs, and that successful corporations emphasize job challenge for developing managers (McCall et al., 1988; McCauley, Ruderman, Ohlott, & Morrow, 1994). In fact, the "developmental potential of a work experience is driven by the challenges it presents" (McCall et al., 1988, p. 8). Successful leaders' careers are marked by a variety of specific challenging work assignments and disorienting experiences, like starting an operation from scratch, making a huge leap in scope of responsibility, or turning around a business in deep trouble. This study hypothesized that challenging workplace learning events would stimulate the development of critical thinking skills.

ADAPTIVE FLEXIBILITY

The "high-tech" arena of the global marketplace requires that organizations be able to respond flexibly to rapid changes in conditions and circumstances. For this reason, contemporary organizations need leaders who can adapt to and learn from the challenges encountered when confronting change. In his theory of integrative development, Kolb (1984) states that the ability to respond flexibly to change has a strong influence on a person's adaptation and growth over the life span. This trait is called "adaptive flexibility." People with high degrees of adaptive flexibility are readily able to adapt their style of learning to the demands of the learning situation. An adaptively flexible leader can more successfully manage in the global marketplace than a leader who is not adaptively flexible (Payne, Bettman, & Johnson, 1993).

Based upon research conducted to date, variables associated with the development of critical thinking ability in leaders are intelligence, age, years of education, and years of experience, as depicted in the unshaded portions of the "Individual Characteristics" component of the diagram in Figure 1. This research study proposes the addition of an additional individual characteristic, adaptive flexibility (Kolb, 1984).

= BASED UPON PRIOR RESEARCH

= PROPOSED ADDITIONS

Figure 1. Framework of factors associated with critical thinking skills development.

RESEARCH HYPOTHESES

H01. There will be no significant combination of independent variables: number of workplace developmental learning events, average perceived significance of workplace developmental learning events, and individual characteristics (adaptive flexibility, years of experience as a leader, years of education beyond high school, and age), that predict the level of critical thinking.

H02. There will be no significant differences between executive-level and mid-level leaders with respect to number of workplace developmental learning events.

H03. There will be no combination of factors that describe the workplace developmental learning events of the leaders studied.

H04. There will be no combination of workplace developmental learning factors that predict the average perceived significance of learning of the leaders studied.

H05. There will be no combination of workplace developmental learning factors that predict the level of critical thinking of the leaders studied.

RESULTS

The research sample of 119 people consisted of 88 males (74%) and 31 females (26%). The mean age of study participants was 42.9 years (SD=7.2); average number of years of education beyond high school was 5.5 years (SD=1.9); mean number of years of direct supervisory experience was 12.3 years (SD=7.1). With respect to organizational level, 25 (21%) were executive-level managers and 93 (78%) were mid-level managers. The mean critical thinking score of 67 out of 80 (SD=7.3) placed this sample at the 85th percentile compared to a national sample of sales representatives. The average participant had experienced 22 of the 43 workplace developmental learning events assessed and considered the learning from these events highly significant. The average subject was moderately adaptively flexible, yet during learning or problem solving tended to engage in less than average reflective observation.

H01. Hierarchical multiple regression was used to determine the independent variables that predict critical thinking skills in the leaders studied. The analysis showed that the only significant predictor of critical thinking score was years of education beyond high school ($r=.31$, $p<.001$). The regression analysis indicated that years of education accounted for 10% of the variance in critical thinking score ($p<.001$), a small effect size.. H01 was rejected.

H02. A one-way ANOVA was performed to determine the extent to which executive-level and mid-level leaders vary in reported number of developmental learning events. Results indicated a significant difference exists ($p<.01$) with the mean number of reported experiences for executive-level leaders being 24 (SD=6.5) and for mid-level leaders being 21 (SD=4.5). The reported differences in number of experiences accounted for 6% of the variance between levels, a small effect size. H02 was rejected.

H03. A factor analysis procedure with oblique rotation was used to determine the combination of factors that describe the workplace developmental learning events reported by the leaders studied. The factor analysis identified six factors that describe the reported workplace developmental learning events of the leaders studied: 1) Career Crisis, 2) High Stakes, 3) Management Development Opportunities, 4) Reduction Decisions, 5) Mentor or Role Model, and 6) Discrimination. H03 was rejected.

H04. The correlation matrix of the six factor scale scores and average perceived significance of learning showed significant correlations between High Stakes and average perceived significance ($r=.27$, $p<.01$) and between Management Development Opportunities and average perceived significance ($r=.56$, $p<.001$). A stepwise multiple regression revealed that Management Development Opportunities accounted for 31% of the variance in average perceived significance rating, a large effect size. H04 was rejected.

H05. The correlation matrix of total critical thinking score and the six factor scale scores revealed no significant correlations, the highest being $r=.14$. H05 was accepted.

DISCUSSION

The results of this study support the results of previous studies of learning in leaders that concluded that the most important lessons are learned from on-the-job experiences (Baldwin & Padgett, 1993).

The results of this study indicate that formal education was the only variable significantly related to critical thinking. This result supports previous research studies that found critical thinking correlated with education (Pearson, 1991). Both challenging workplace experiences and adaptive flexibility were not related to critical thinking.

The factor analysis identified six factors that describe the reported workplace developmental learning events of the leaders studied: 1) Career Crisis, 2) High Stakes, 3) Management Development Opportunities, 4) Reduction Decisions, 5) Mentor or Role Model, and 6) Discrimination. Factors 1, 2, 4, and 5 resemble factors identified in several CCL studies (Eichinger & Lombardo, 1990; McCall et al., 1988; McCauley et al., 1994). Management Development Opportunities and Discrimination are new results.

With the lowered levels of reflection (i.e., low ROAF scores) responses to situations and dilemmas at hand may have been "automatic," reinforcing previous learning when the potential for new learning and development existed.

The Watson-Glaser concept of critical thinking is narrowly focused and restricted. Results of this study show that WGCTA critical thinking is logic-based, single-loop (Schon 1987), instrumental and weak sense (Paul, 1984) critical thinking. Schon (1987) describes critical thinking as a process whereby the individual reflects on actions and thought processes, calling into question underlying assumptions. A closer analysis of the items on the WGCTA show that correct answers can be determined by the rules of logic. No reflectivity is needed.

Reflective judgment is a structurally based cognitive ability based upon levels of cognitive schema (King & Kitchener, 1994). Reflective judgment ability is necessary for solving ill-structured problems, e.g., the kind of real-life problems encountered in the workplace, particularly by challenging or disorienting experiences (King & Kitchener, 1994). Measuring reflective judgment rather than critical thinking may have been more appropriate to the purposes of this study.

Piaget (1972) uses the term schema or schemata to describe the framework onto which incoming sensory data can and must fit. Schema are mental maps that enable individuals to orient themselves within their experiential terrain. As an individual has new experiences the schematic framework constantly changes through activation of the assimilative/accommodative process. In this study there was no way of testing or measuring whether the 43 workplace learning events measured on the Experiences Checklist were truly developmental. To what degree the Experiences Checklist actually measured developmental learning is uncertain.

CONCLUSION

The results of this study provided only partial support to the model for developing critical thinking in organizational leaders proposed in Figure 1. Results of this study suggest that the development of critical thinking is a more complex process than that illustrated in Figure 1.

Based upon the results of this study and upon a follow-up review of the literature relative the study's outcomes, a revised model was developed that more accurately depicts the developmental learning process of leaders through workplace learning experiences. The framework encompasses the development of both critical thinking and reflective judgment.

Figure 2 illustrates the revised model for critical thinking and reflective judgment development in organizational leaders. The model consists of two paths or tracks: 1) a confirmatory relearning path corroborating an existing model of meaning , and 2) a developmental learning path resulting in a revised model of meaning.

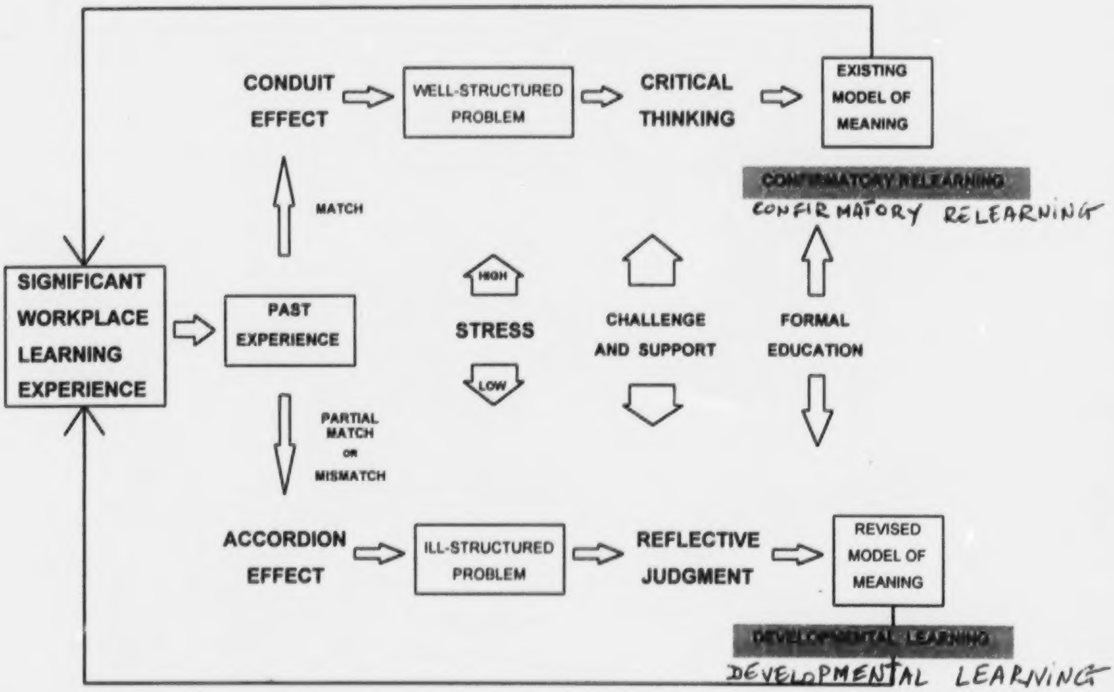

Figure 2. Revised model for critical thinking and reflective judgment development in organizational leaders.

CONFIRMATORY RELEARNING

The confirmatory relearning process is triggered when the leader perceives a match between the current situation and past experience. The individual responds automatically and no "new learning" takes place. This is called the conduit effect (Sheckley & Keeton, in press). The experience is constructed as a well-structured problem. Well-structured problems can be solved using critical thinking skills (King & Kitchener, 1994). The confirmatory relearning process results in corroborating the existing model of meaning.

DEVELOPMENTAL LEARNING

The developmental learning process is activated when the individual perceives either a partial match or a mismatch between the current situation and past experience. The hierarchical structure of the individual's "world view" or "model of meaning" is abandoned or altered in some

BEST COPY AVAILABLE

way. The reflective system is activated and new learning takes place. This is called the accordion effect (Sheckley & Keeton, in press). If the current problem or circumstance is viewed as novel, the leader will construct the experience as an ill-structured problem with its attendant ambiguity and uncertainty. Ill-structured problems are best solved using reflective judgment (King & Kitchener, 1994). The developmental learning process results in the creation of a revised model of meaning.

REFERENCES

Baldwin, T. T., & Padgett, M. Y. (1993). Management development: a review and commentary. In C. L. Cooper & I. T. Robertson (Eds.) International review of industrial and organizational psychology 1993 volume 8. Chichester, England: John Wiley & Sons Ltd.

Dewey, J. (1916). Democracy and education. New York: The MacMillan Company.

Eichinger, R. W., & Lombardo, M. M. (1990). Twenty-two ways to develop leadership in staff managers. Greensboro, NC: Center for Creative Leadership.

King, P. M., & Kitchener, K. S. (1994). Developing reflective judgment. San Francisco: Jossey-Bass.

Kolb, D. A. (1984). Experiential learning: Experience as the source of learning and development. Englewood Cliffs, NJ: Prentice-Hall.

McCall, M. W., Lombardo, M. M., & Morrison, A. M. (1988). Lessons of experience: How successful executives develop on the job. Lexington, MA: Lexington Books.

McCauley, C. D., Ruderman, M. N., Ohlott, P. J., & Morrow, J E. (1994). Assessing the developmental components of managerial jobs. Journal of Applied Psychology, 79(4), 544-560.

Neumann, A. (1989). Critical thinking skills: A framework of definitions and applications to management and organizational studies. Unpublished manuscript, Teacher's College, Columbia University.

Paul, R. W. (1984, September). Critical thinking: Fundamental to education in a free society. Educational Leadership, 4-14.

Payne, J. P., Bettmann J. R., & Johnson, E. J. (1993). The adaptive decision maker. New York: Cambridge University Press.

Pearson, C. V. (1991). Barrier to success: Community college students' critical thinking skills. Washington, DC: US Office of Education. (ERIC Document No. ED 340 415).

Piaget, J. (1972). Intellectual evolution from adolescence to adulthood. Human Development, 15, 1-12.

Pierce, G. (1990, August). Critical thinking: The role of management education - developing managers to think critically. Paper presented at the Annual Conference on Critical Thinking and Educational Reform, Rohnert Park, CA.

Schon, D. A. (1987). Educating the reflective practitioner: Toward a new design for teaching and learning in the professions. San Francisco: Jossey-Bass.

Sheckley, B. G., & Keeton, M. T. (in press). Service learning: A theoretical model. In J. Schine (Ed.), Service learning: 97th Yearbook of the National Society for the Study of Education.

Robert E. Duchesne, Jr., Ph.D., 265 Lewiston Avenue, Willimantic, CT 06226

Presented at the Eastern Adult, Continuing and Distance Education Research Conference, Penn State University, University Park, PA, October 24-26, 1996.

MOVING INTO INTERACTIVE VIDEO INSTRUCTION: LESSONS FOR FACULTY AND ADMINISTRATION

Marcel J. Dumestre, Ed.D.
R. Dawn Noel

ABSTRACT

This paper discusses the results of a demonstration project funded by the Telecommunication Information Infrastructure Assistance Program (TIIAP). City College, Loyola University New Orleans received grant funding to incorporate two way audio and video conferencing into an already existing distance learning program. The primary objective of this study is to discuss findings of the college's evaluation of the transition to digitally coded instructional video. More generally, it considers implications for an institution that intends upon changing instructional technology from either traditional classroom teaching to distance education or from one distance education technology to another one. Data collected from faculty and student surveys and interviews are analyzed to present lessons learned in six key academic and administrative areas.

INTRODUCTION

Technology should be a transparent extension of ourselves (Soukup, 1996). It extends our senses and imagination to reach beyond the immediacy of our own environment and situation. The telephone, for example, has long extended our hearing and our ability actually to communicate across the planet. Technology is transparent when we do not have to know how and why the equipment works. One need not be able to build and repair televisions and computers in order to use them. So much so should instructional technology be transparent.

THE COLLEGE

The need for transparent distance education technology has become ever more evident to City College, Loyola University New Orleans as it carried out a distance education demonstration project in the 1995-96 academic year. Loyola University in New Orleans is a comprehensive university comprised of 5 colleges with approximately 5, 000 students. City College is the evening college of the university dedicated to the adult learner. It differs from many other evening divisions in that it has its own full-time tenure track faculty as opposed to being simply an administrative unit dedicated to the coordination of evening and weekend classes. The college offers 4 baccalaureate degree programs with 7 majors plus two master's degrees. Undergraduate enrollment in the college is approximately 650, including 100 students in distance education nursing and criminal justice programs. There are also approximately 910 graduate and continuing education students enrolled in two master's degree programs in religious education and pastoral studies. Only 55 master's degree students are studying on campus in a traditional course delivery system. The balance, 635 graduate students, are pursuing their degree via distance education. Additionally, there are 220 non-credit distance continuing education students in the same program. Therefore, total enrollment in the college is approximately 1,560, of which the majority of students (58%) are pursuing their studies through distance education. The average age of undergraduate students is approximately 38, and graduate students average 43 years of age. Thus, City College is dedicated to non-traditional age students and offers professionally oriented undergraduate and graduate programs utilizing both traditional and non-traditional course delivery systems. It should be noted that recent growth in the college overwhelmingly has come through distance education.

CURRENT DISTANCE EDUCATION PROGRAMS

There are two different types of distance education delivery systems used in the college. Initiated in 1990 the Off Campus Learning Program (OCLP), is utilized in the undergraduate nursing and criminal justice degree programs. In this program class sessions are videotaped and shipped after each class to students at approximately 10 different hospital and police educational sites in South Louisiana. Extension students view the videotapes each week and keep the same schedule of classes as on-campus students except that they are one week behind due to the videotaping and shipping process. Their semester effectively ends one week after the on-campus program. A site facilitator arranges for students to view the unedited class videos and acts as a proctor for exams and other academic requirements. An "800" telephone line is available for students to contact their instructor as well as to be in contact with university services. A full-time librarian was hired specifically to assist students with library searches. Writing Across the Curriculum (WAC) assistance is also available. Typically, no campus visits are required. It is highly suggested, however, that students attend an on-campus orientation session prior to taking their first OCLP class.

The second distance education program utilized by the college is a professional cohort model used in the graduate program. This delivery system was first offered in the fall semester of 1983. Housed in the college's Loyola Institute for Ministry (LIM), this extension program (LIMEX) offers two master's degrees plus a continuing education program. Like the OCLP program an institutional affiliation is obtained prior to offering classes. In this case a Catholic diocese enters into an agreement with Loyola to provide appropriate adult-oriented classroom space and to arrange for the services of a liaison administrator and facilitators in the local area. Unlike the OCLP program, students do not receive videotapes of on-campus classes. Rather, students receive bound course books containing the professor's lectures for the course plus an extensive syllabus with required reading in collateral texts along with weekly and end-of-course assignments. Students pursue a 36 credit hour curriculum one course at a time in an 8 to 15 student cohort over a 3 and 1/2 year period. Courses are taken sequentially and no transfer credit is allowed into the program. Students meet weekly in their local area for a three-hour class session over a 12-week period for each of the courses. The class sessions are conducted by Loyola-trained and certified facilitators with a learning design created by a full-time faculty member. In each class students share their weekly assignments and insights on readings as well as view and discuss a Loyola-produced video with mini-lectures by nationally known experts in the field. In other words, students do not go to class to hear a lecture, they have already read it prior to class. Class time is devoted to clarification and discussion. A Loyola adjunct faculty dedicated to student evaluation grade student papers for each course under the direction of the full-time faculty.

Although these two distance education programs differ greatly in their educational approach both have proven to be effective. Faculty report no significant difference between educational achievement of extension students and on-campus students. This achievement may be due to the efficacy of the delivery system or, as anecdotal evidence suggests, extension students may be particularly motivated to do whatever it takes to complete the course satisfactorily. This level of achievement was supported by an externally-funded study completed by a LIMEX faculty member which compared measures of student achievement between extension students and on-campus students as well as between the same extension students and ministry graduate students in 42 other Catholic colleges, universities, and seminaries. No overall statistical difference was found between Loyola extension students and on-campus student or students in the other institutions (Fleischer, 1994).

It should be noted that students in both of the college's distance education programs are pursuing degrees as opposed to just taking college courses for credit to be transferred to a degree program either in the college or to another institution. Average age of students is not significantly different from that of students in corresponding on-campus programs.

THE DEMONSTRATION PROJECT

The purpose of City College's TIIAP demonstration project was to provide funding for personnel, personal computers, and video conferencing equipment to connect distance education students in nursing with a video classroom on campus as well as to connect Louisiana literacy providers to the resources of the university. The grant funded the delivery of eight interactive video courses in a number of different disciplines which were taught in three different semesters to one external site. This paper only will discuss findings of the nursing interactive video part of the project. The literacy provider support system has vastly different purposes and will be evaluated separately.

EQUIPMENT AND PERSONNEL

The selection of equipment for the project was decided upon by Loyola's educational partner in the project, Our Lady of the Lake Hospital in Baton Rouge, LA provided an AT & T System 1000 M50 video teleconferencing unit with a 27" monitor, control keypad and camera. ISDN telephone lines also had to be installed in both the video control room in New Orleans and the location of Our Lady of the Lake's teleconferencing equipment.

Each course was offered in one of the college's video classrooms equipped with five monitors in various locations for students and the instructor to see the students in Baton Rouge. The room also is equipped with three ceiling-mounted cameras and a document camera. A window in the back wall of the classroom allows the technician in the videotaping control room to see into the classroom and to communicate with the instructor. The technician operates the cameras both in New Orleans and Baton Rouge from the control room.

The Baton Rouge classroom is equipped with the PictureTel cart with a 27" monitor plus one external monitor. Another technician in Baton Rouge made sure the equipment was functional at the beginning of each class and stayed on call, but students found it best to operate the remote audio box themselves.

In addition to the video equipment the grant provided a computer for the Baton Rouge site plus 9 other OCLP sites. A Macintosh Perfomra 636 computer with a 28.8 BPS modem and a Stylewriter printer was selected because of compatibility with on-campus faculty computers and ease of use.

The grant provided for three additional personnel, two part time, one full time, as well as increasing two current personnel to full time status. In a matter of weeks, the distance learning program jumped from one full time employee and one part-time employee to four full time employees and one part time employee.

THE INTERACTIVE COURSES

Three interactive video courses were offered in each of the fall and spring semesters, and two courses were offered in the summer. Each class had students enrolled in both the on-campus and Baton Rouge interactive video classrooms. Students taking the classes were pursuing a City College degree program. Very few of the students were new to the college. Class size in New Orleans averaged 19.5 students plus an average of 5.5 students in extension. Course disciplines included nursing, religious studies, English composition, music appreciation, philosophy, history, and sociology.

Interactive classes were held one evening each week each semester, typically in the 6:20 pm to 9:00 pm class period. With only one exception, all of the faculty teaching interactive courses previously had taught video classes in the OCLP program. Lecture and discussion was the most typical teaching method employed, with the addition of occasional small group work in some classes. Student class assignments varied from research papers to objective tests. Faculty also encourage extension students to use e-mail to contact them. In one case, an instructor required weekly academic journal entries to be sent to him via e-mail (including on-campus students) and also required research on the Internet. Most instructors did not require computer usage but highly suggested that students take advantage of access to the computer and modem.

The grant provided Internet access funding for extension students. In the first semester, America On Line was used because of its reputation for an excellent help line. In the two following semesters, Communique, a South Louisiana access provider, was used because of more reasonable rates.

FINDINGS

The findings for this paper come from two interim evaluations of the project completed after the fall and spring semesters. The summer semester evaluation has not yet been completed. The final evaluation will be completed within the next two months. Despite the need to view these findings as tentative, there are a number of insights already emerging from the project experience.

Survey instruments were created and administered by the project evaluator, John Baiamonte, Ph.D., an adjunct faculty member in the college, for both students and faculty. After each semester the surveys were distributed to faculty members teaching interactive video courses, as well as to the students enrolled in the on- and off-campus sections of the courses. Additionally, the evaluator audited some of the class sessions. Faculty observations about their experience of teaching the classes are taken into consideration as well.

Overall the extension students registered more negative comments than did the on-campus students about the interactive delivery system. For example , a large majority of extension student survey respondents indicated that they could not adequately see the chalk board and documents on the monitor (80% in fall, 60% in spring). Also a significant minority of respondents (40% in fall, 30% spring) found the quality of the sound inadequate. Only 50% of respondents in the spring (80% in the fall) indicated that the video monitor image was clear and enabled them to see the instructor and students in the Loyola campus classroom. Although 100% of spring respondents (80% in the fall) found that the instructors attempted to engage them in class discussion, a significant percentage (40%, spring; 60%, fall) did not feel like a part of the class. Furthermore, when alienation is measured in another manner, 90% of extension respondents in the spring felt "out of touch" (40% in the fall). Also, 60% of spring respondents (40% in the fall) preferred the OCLP videotaped classes over the interactive format, and 70% (40% in the fall) found the interactive setting distracting.

Despite such indications of dissatisfaction and feelings of alienation, 70% of spring respondents (80% in the fall) indicated that overall they were satisfied with their interactive class, and 60% (80% in the fall) would take another interactive class. Also, 70% of spring extension respondents (80% in the fall) would recommend an interactive class to a friend.

The extension student respondents in both semesters also registered negative comments in the open ended questions. They generally felt there was not enough opportunity to interact with the main campus. Also, they said the equipment was either distracting or too difficult to observe.

Survey results from on-campus students suggest a high degree of satisfaction with their participation in their interactive class. These students were in the interactive classroom on the Loyola campus. On campus student respondents (93% in the spring, 97% in the fall) did not find the monitors and cameras distracting and felt comfortable in their presence. The students also highly agreed (100% spring, 91% fall) that the instructors did not seem to pay more attention to extension students than to them. Also, on-campus student respondents (91% spring, 74% fall) indicated that both extension and on-campus students were treated equally by the instructor. On-campus student respondents (100% spring, 97% fall) were highly satisfied with their experience in the interactive classroom and would take another interactive class. Also, they would recommend an interactive class to a friend (91% spring, 87% fall). In regard to open-ended questions the only discernible pattern of responses was that on-campus students requested that cameras not focus on them individually and that the number of cameras/monitors be reduced.

Faculty responses to the survey are problematic because only fall results are available. All of the spring faculty participant surveys have not yet been returned. In the fall, 2 of the 3 faculty members involved in the project indicated that the technical support received was beneficial and that the interactive technology was effective in the reaching extension students. However, 2 out of 3 faculty members did not find it easy to interact with the extension students in the interactive classroom. Nevertheless, the faculty still felt (100%) that the interactive class setting facilitated their communications with extension students, and they (66%) were comfortable with the interactive class setting. Apparently, the faculty is ambivalent toward this new technology. They indicated that they were not distracted (100%) by the present of the equipment in the interactive classroom , and they found (100%) the overhead zoom camera helpful in presenting information to both off-campus and on-campus students. All three instructors agreed that they would teach another interactive class.

LESSONS FOR FACULTY AND ADMINISTRATORS

Findings from the interim evaluations of the interactive video classroom project indicate a number of different difficulties. Even though a final evaluation of the project is yet to be completed the following implications for faculty and administrators are derived from the experience of the project start up.

1. Move Into Distance Education Technology with a Pedagogical Mindset

There is the danger of letting the romance of technology overtake the intentions and experience of effective distance education pedagogy. Avoid technology for technology's sake. In City College's case it was assumed that technology which more closely reflected the on-campus instructional methodology would give extension students a better educational experience. Findings suggest that extension students valued the videotaped classes more than the live interactive classes. More investigation needs to be completed on why extension students prefer videotapes. Reasons for pursuing a degree via distance education might identify why the traditional methodology would not suit the extension student.

2. Distance Education Requires An Adequate Start-Up Period

Technical problems could have been avoided if there were a longer lead time between the receipt and installation of equipment and the actual start-up of classes. Many lessons were learned during the first semester in which the equipment was installed. As with all new technology, a period of adjustment characterized the receipt and implementation of the granted equipment.

It would beneficial for institutions to allow at least one semester for experimentation with new equipment. Orienting everyone in a relatively short period of time while managing a growing distance learning program and incorporating complex new technology made the new technology start-up very problematic. The ordering and installation of the video teleconferencing equipment took much longer than expected. Inadvertently, some necessary equipment was not ordered. This caused much confusion and delay. Since the equipment arrived as the semester began, problems with the system had to be corrected "live," as the courses were being conducted. This too caused frustration for both faculty and students. A delay in the installation of the necessary phone and ISDN lines also put the video teleconferencing system off schedule. On several occasions the connection with the off campus location was interrupted, and therefore, disrupted on the on campus course session of the first three courses chosen to be taught by this method. The "traditional" distance learning program, in which courses are videotaped and sent to sites off campus, was affected in that the videotapes now included the additional element of teleconferencing; all mishaps associated with the new equipment were seen on these videotape.

3. Faculty and Staff Require Retooling and Instruction on Technology

Many faculty members and administrators assume that few changes need to occur in order to incorporate technology into the classroom. Attempting to "ignore" the cameras and microphones and simply teach only exacerbates the technological intrusion. Faculty members often need feedback from students and other educators has to how they project themselves on video--both live and on videotape. Simple things like the instructor's sound level and use of the chalk board and document camera need to be monitored. Moreover, the camera operators need to have an educational sense of what is going on in the classroom. They need to be sensitive about how students feel when the camera zooms in on them while asking questions. One extension student admitted at the end of one of the courses that she was nervous during each class because of the possibility of being "featured" on the monitor.

4. Distance Education Requires Significant Administrative Support

Incorporating administrative procedures into existing OCLP procedures also proved challenging. Registration for students into these classes could easily utilize the University telephone registration system. However, separate sections had to be created in order to limit the number of students enrolled in the off campus sections of these courses; faculty have also suggested limiting the number of students enrolled on campus to provide a less "intimidating" environment for the distance learner. A separate administrative system had to be set up to accommodate interactive class testing and evaluation dates. Administrative staff also provided computer set and training for extension students, which turned out to be very problematic because of the uneven computer literacy of students. Some students worked with personal computers while others could not even type.

5. Flexibility Is More Important Than Live Interaction With Instructors

Findings suggest that there was not a significant difference in academic achievement between interactive class students and on-campus students. Extension students, however, indicated less satisfaction with the interactive class delivery system. In other words, they learned in the class but were not satisfied with how they learned. Many of the interactive students had taken the OCLP videotaped courses prior to taking the interactive class. In effect, they did not have the same amount of flexibility with the interactive class as they did with videos. In the OCLP system students could gather at any time they wanted to gather to view videotapes, and they could take the tapes home with them. For the adult students in this project, findings suggest that having this type of flexibility is more important than having access to live instructors.

6. Instructional Technology Can Be Alienating

Findings indicated that a significant percentage of interactive students felt "out of touch" with the on-campus class. Interactive students in one class asked the instructor on a regular basis to stay after class to talk with them. They did not feel comfortable asking questions during the class. One instructor suggested that even live video puts students in a passive mode of learning. It takes extra effort to turn the microphone on in the remote site. Another instructor traveled to the external site and taught the class there. The on-campus students reported the same feelings of passivity, even though they did not have to physically turn the microphone on. Additionally, there is a delay in the sound system that requires communication to be more deliberate than normal conversation. Students seemed to feel that the possibility of communication in the interactive setting was not comforting if it did not have the feel of spontaneity.

WORKS CITED

Soukup, S.J., P. (1996). Invisible, inevitable, paradoxical technology. *Conversations* 9 (Spring), 23-27.

Fleischer, B.J. (1993). *Loyola's institute for ministry evaluation of student outcomes.* Loyola University New Orleans.

Marcel J. Dumestre, Ed.D., Dean, City College Loyola University New Orleans
R. Dawn Noel, Director of Student Services, City College Loyola University New Orleans

City College, Loyola University
6363 St. Charles Avenue
New Orleans, LA 70118

Presented at the Eastern Adult, Continuing Education Research Conference, Penn State University, University Park, PA October 24-26, 1996.

LEARNING THEORY APPLIED TO ADULTS: A PROPOSED MODEL

Trenton R. Ferro

ABSTRACT

Although extensive research into how people learn has been carried out, little has concentrated on the adult learner. In addition, little attention has been given to the practical application in adult settings of learning theories. The model presented here attempts to apply existing learning theories by dividing them into three major categories--cognitive, behaviorist, and psychoanalytic/humanistic--and aligning these categories with the domains within the taxonomy of educational objectives--cognitive, psychomotor, and affective. Beginning with desired outcomes and appropriate goals for each learning situation, appropriate and effective strategies and activities can be developed. The utility of the model lies in its attempt to start with the practical application, the development of objectives and the planning of learning activities, and then work back to the appropriate theories underlying these goals and strategies. The assumptions underlying the model are also presented and illustrated.

INTRODUCTION

While the literature in adult, community, and continuing education includes a considerable portion addressing characteristics of adults as learners, barriers to and facilitators of learning, credos of adult learning, learning styles, and related topics (see Merriam, 1988), that addressing adult learning theory (or theories) is more limited. In fact, much of the discussion of learning theory for adults is based on the work of educational psychologists who have focused more on level K-12 education than on adult learning. Furthermore, a fair amount of the literature is devoted to arguments about which is the correct--or at least the better--theory or paradigm.

The theoretical model proposed here alters the question: How can adult educators operationalize these learning theories? This is done by moving from program objectives to the appropriate theories rather than starting with a particular theory and imposing that one theory on all learning situations.

IMPORTANCE

If adult educators are to move beyond a "cookbook" approach to course development and program planning--an approach in which methods and techniques are chosen more because they look good, feel right, are easy and comfortable for the facilitator, fit philosophical presuppositions, etc.--and become more intentional in the selection of appropriate activities for learning, these practitioners need some guidelines which will help them apply to specific settings what theorists have developed about how people learn. The purpose behind the development of this model is a concern for translating learning theory into a format which will help the practitioner in the adult, community, and continuing education setting to be more intentional about the process of planning and conducting educative experiences. By paying careful attention to both the learning objectives and appropriate learning theory, the educator will be able to develop and carry out more consistent courses and programs. Hence, the model is intended to be both a descriptive depiction of current theory and a guide to making practical application of that theory.

PROPOSED MODEL

The applied learning theory model (see Figure 1) is based on certain assumptions. a) Each of the learning theories, grouped together under the broader headings of behaviorist, cognitive, and psychoanalytic/humanistic (Darkenwald & Merriam, 1982; Dubin & Okun, 1973; Simpson, 1980) are valid in appropriate circumstances and under certain conditions. There is not a "right" or better learning theory; no theory fully describes or explains how people learn. Rather, each provides insights into how learning takes place in specific settings and applications. When all three categories of theories are brought together, they combine much like the facets of a diamond. Each provides significant insights, but what happens in learning is much more than any one theory is able to describe.

b) The application of the appropriate theories is dependent on the learning objectives. As various discussions of educational objectives (Bloom, Engelhart, Furst, Hill, & Krathwohl, 1956; Harrow, 1972; Krathwohl, Bloom, & Masia, 1956; Pierce & Gray, 1981) have illustrated, the range of possible learning is very broad and complex. Careful planning of programs, courses, workshops, seminars, training sessions, and the like usually leads to objectives spread across the spectrum of human learning; they span all levels of the cognitive, affective, *and* psychomotor domains. It appears a natural extension that the educator of adults, in planning the teaching-learning transaction, would develop and utilize such strategies and activities as would best help achieve this broad range of desired objectives. In turn, it appears a natural conclusion to assume that the application of cognitive theory would best facilitate the achievement of cognitive goals; behaviorist theory, psychomotor goals; and humanistic theory, affective goals.

c) Rarely does a single theory meet all the needs and requirements of any particular learning situation. Rarely, if ever, is a learning situation based entirely on a set of objectives which fall totally within one domain. Rather, in some settings the emphasis may be on the development of, for example, values. However, the learners may need to expand their knowledge base before they can arrive at decisions and make appropriate commitments.

Taking another situation as an illustration, one in which participants may be learning a language, all three domains come into play. Students, for example, must gain an understanding of word meanings, syntax, and grammar (cognitive), acquire proper mouth formation and vocalization (psychomotor), and develop an appreciation for the lands and cultures of native speakers (affective, but often based on strong elements of cognitive learning). Consequently, while one domain and its accompanying theories may predominate, the other domains, along with their supporting theories, must also be utilized in planning and developing the learning experience.

APPLICATION

The development and applicability of this model is based upon combining the three categories of learning theory (behaviorist, cognitive, and humanistic) with the three domains of the taxonomy of educational objectives (psychomotor, cognitive, and affective). The model then illustrates how, for instance, a learning situation in which a psychomotor skill (e.g., writing, operating a machine, learning a sport) is taught will draw most heavily on theories in the behaviorist category. However, since there may also be learning objectives related to the acquisition of knowledge and the changing of attitudes, cognitive and affective theories will also be drawn upon to the extent that these objectives are present. Armed with this understanding and insight, the educator or program planner can then proceed to develop appropriate activities for the accomplishment of these objectives.

In a similar manner, learning situations emphasizing the acquisition of knowledge and the development of higher level thinking skills would draw more heavily from cognitive learning theories, and those circumstances which place an emphasis on defining values, becoming more sensitive to feelings and emotions, and changing attitudes would utilize humanistic theories as a base for developing appropriate strategies. Objectives determine which theories will be applied in order to facilitate the most effective learning.

FURTHER DEVELOPMENT OF THE MODEL

Model building is always a work in progress. So it is with this proposal, as well. A number of questions must be addressed on a regular basis if this model is to provide a basis for practice and research.

1. Does this model, in fact, serve its intended purpose, namely, a) to apply general learning theory to adult learning settings, and b) to provide an operational matrix for comprehensive program and lesson planning? How can it be improved to better meet these basic purposes?

2. Does the alignment of the three theoretical categories (cognitive, behavioral, and humanistic) with the three domains of educational objectives (cognitive, psychomotor, and affective) actually work?

3. Are the theorists included properly placed both within domains and in relationship to neighboring domains?

4. Are there theorists and theories that should be included--and where should they be placed? For example, consideration needs to be given to Mezirow's Theory of Transformation and to Critical Theory. Should these be considered as learning theories? Will these fit into existing theoretical categories? If not, how does the potential creation of new theoretical categories affect the alignment with the domains of educational objectives?

5. What research questions can be developed, and what methodologies used, to test the model?

REFERENCES

Bloom, B. S., Engelhart, M. D., Furst, E. J., Hill, W. H., & Krathwohl, D. R. (1956). *Taxonomy of educational objectives: The classification of educational goals. Handbook I: Cognitive domain.* New York: David McKay.

Darkenwald, G. G., & Merriam, S. B. (1982). *Adult education: Foundations of practice.* New York: Harper & Row.

Dubin, S. S., & Okun, M. (1973). Implication of learning theories for adult instruction. *Adult Education, 24*, 3-19.

Harrow, A. J. (1972). *A taxonomy of the psychomotor domain: A guide for developing behavioral objectives.* New York: David McKay.

Krathwohl, D. R., Bloom, B. S., & Masia B. B. (1956). *Taxonomy of educational objectives: The classification of educational goals. Handbook II: Affective domain.* New York: David McKay.

Merriam, S. B. (1988). Finding your way through the maze: A guide to literature on adult learning. *Lifelong Learning: An Omnibus of Practice and Research, 11*(6), 4-7.

Pierce, W. D., & Gray, C. E. (1981). *Deciphering the learning domains: A second generation classification model for education objectives.* Washington, DC: University Press of American.

Simpson, E. L. (1980). Adult learning theory: A state of the art. In H. Lasker, J. Moore, & E. L. Simpson, *Adult Development and Approaches to Learning* (pp. 43-74). Washington, DC: National Institute of Education.

Trenton R. Ferro, Associate Professor and Coordinator, Adult and Community Education, 231 Stouffer Hall, Indiana University of Pennsylvania, Indiana, PA 15705; <trferro@grove.iup.edu>.

Presented at the Eastern Adult, Continuing and Distance Education Research Conference, Penn State University, University Park, PA, October 24-26, 1996.

SIDDHARTHA'S SPIRITUAL ODYSSEY: AN ANALYSIS OF HERMAN HESSE'S *SIDDHARTHA* BASED ON FOWLER'S STAGES OF FAITH DEVELOPMENT

Trenton R. Ferro

ABSTRACT

In *Siddhartha* Herman Hesse presents one man's search for meaning and purpose in life. In reading the novel this investigator was struck by the possible similarities between the various stages of the of the main character's spiritual quest and those which James Fowler proposed as denoting the various levels of faith development. This study was undertaken to see if, in fact, the character Siddhartha could serve as an illustrative model of Fowler's proposed taxonomy. The methodology used was a literary analysis of *Siddhartha* to distinguish the steps or stages of the main character's spiritual quest and internal growth as presented by Hesse. These levels of development then were compared to the faith stages proposed by James Fowler to determine if Siddhartha's development does indeed illustrate and exemplify Fowler's theory. The subsequent analysis and comparison did prove to be positive; there is a remarkable correlation between Siddhartha's spiritual growth and Fowler's proposed stages of faith development.

INTRODUCTION

In *Siddhartha* Herman Hesse presents one man's search for meaning and purpose in life. As this investigator read this novel, he was struck by the possible similarities between the various stages of the of the main character's spiritual quest and those which James Fowler proposed as denoting the various levels of faith development. This study was undertaken to see if, in fact, the character Siddhartha could serve as an illustrative model of Fowler's proposed taxonomy. Following an outline presentation of Fowler's stages of faith development, a description of Siddhartha's spiritual odyssey is given. This growth pattern is compared with Fowler's theory to determine how closely it does or does not parallel his theory. Finally, a brief discussion considers the value of reading literature as a means of becoming better acquainted with adult development.

FOWLER'S STAGES OF FAITH DEVELOPMENT

One of the more recent additions to the study of human development has been the investigation of the stages of faith conducted by James Fowler. The results of his work have been presented in book form (Fowler, 1981) and interview (Fowler, 1983) and have served as the basis of a major research project in adult development (Bruning & Stokes, 1982). Based on the work of Jean Piaget, Erik Erikson, and Lawrence Kohlberg, Fowler's research has delineated a sequence of stages through which individuals might pass on their faith journey. While sequential and irreversible (much like Kohlberg's theory of moral development), these stages are not like a flowing stream. Rather, they are like a series of pools and dams. One might stay at one pool for a great length of time (Fowler, 1983). In fact, one may never progress beyond a stage reached as a child, adolescent, or young adult.

Although Fowler is a Christian and often speaks of faith in terms of attitude toward, and relationship with, the Triune God, his theory can apply to any religious system, including atheists and agnostics. Ultimately, faith describes that which has the greatest meaning or highest value in one's life; it is the apprehension of the universal, of that which is of ultimate concern (Fowler, 1981). This might be one's career, a moral principle, a social value, another person, or oneself. Every person puts faith in something (or puts something first in one's life) and, hence, is at some faith stage. Although a person may not progress beyond a certain stage through the lifespan, there are age levels before which that person cannot normally proceed to the next stage.

The stages which Fowler (1981) has developed are as follows:

Undifferentiated Faith (infancy)--blind trust in parents and others in the home.

1. Intuitive-Projective Faith (up to about age 6)--the child adopts the parents' faith uncritically.
2. Mythic-Literal Faith (childhood and beyond)--the child, although becoming aware of, and to some extent internalizing, other systems and centers of faith, still adheres to that of the parents, family, and inherited religious tradition.
3. Synthetic-Conventional Faith (adolescence and beyond)--the adolescent becomes influenced by the peer group, and the personal faith system is adjusted so that the adolescent will be accepted and can belong. The emphasis is on the "norm" to which one adheres; hence, this is the stage at which many adults, who have strong attachment to a congregation, synagogue, or other religious organization, remain throughout the remainder of their lifespan.
4. Individuative-Reflective Faith (young adult and beyond)--the person begins to question and have doubts and begins to form beliefs independent of her background.
5. Conjunctive Faith (mid-life and beyond)--the adult who reaches this stage begins to reconcile the several influences and aspects of personal experience and to integrate these into a meaningful whole. Such a person recognizes that any belief system is less than the universal that system tries to describe and define and that one's faith can benefit from the contributions offered by other belief perspectives.
6. Universalizing Faith (mid-life and beyond)--For the person who attains this stage, which is actually achieved by very few, all of life becomes whole and has meaning; one's ego and self-interest, present even at Stage 5, is subordinated to this greater whole. Fowler (1981) cites Gandhi; Martin Luther King, Jr.; and Mother Teresa as examples of this level of faith development, although persons who attain this stage may be relatively unknown and not receive the publicity given these famous personages.

Two additional observations need to be made. a) Movement from one stage to the next--however that movement occurs--is *not* the same as a conversion experience. Conversion involves a change in the *content* of one's belief system, e.g., from Christianity to Islam, not a change in the *structure* of the person's faith system. It is for this reason that Fowler can claim universality for his theory of faith stages.

b) Careful study of Fowler's stages reveals that aging leads to greater diversity within a cohort. Hence, there will be greater similarity among young adults, where almost all will be in Stages 2 or 3 of their faith development. On the other hand, older cohorts will include persons who remain at Stages 2 or 3 as well as persons moving into and through Stages 4 and 5. This insight has definite implications, especially for educators and other human service providers who work with older adults.

SIDDHARTHA'S SPIRITUAL ODYSSEY

Only the briefest summary can be presented here of Herman Hesse's great novel. In the process of highlighting Siddhartha's search for truth, for meaning, for purpose in life, the art of Hesse's storytelling will be lost. The hope of the presenter is that the purpose and consequence of Hesse's literary efforts will not be lost as meaning and understanding are sought through an investigation of the hero's life and searchings.

During his adolescence and approaching manhood Siddhartha is the delight of the Brahmin caste, the epitome of every father and mother's dream, the desire of every young lady's heart. He has mastered the ways of the Brahmins and the way of his father, practicing Hinduism as it was meant to be practiced and becoming knowledgeable in the Hindu scriptures. He is not happy, however. He seeks something that is not present in the way of his father. Therefore, becoming acquainted with wandering ascetics called Samanas, he follows them and seeks meaning and understanding--rather, loss of self--in the way of the Samanas. He seeks to avoid the world, to subdue his body. Here is a world view that is dualistic; release of self and the soul is sought in total subjugation of the body.

After a time Siddhartha realizes the futility of this approach as well. To seek release of self by totally denying self is a self-serving activity. He recognizes that the acquisition of knowledge and the teachings of others will not help. Yet he does investigate the way of Gotoma. This a period of transition for Siddhartha. While impressed with Gotoma's demeanor, which exudes peace, truth, and love, Siddhartha is not persuaded by Gotoma's teaching. The Buddha teaches that all is one, yet one needs salvation! It is necessary to escape the one to achieve the one! What Siddhartha seeks is the experience, the Awakening, which Gotoma has undergone and which cannot be communicated in his teaching.

As he leaves Gotoma--and his lifelong friend who has remained with the yellow-robed monks--Siddhartha is lost in thought. As he reviews his search up to this point he experiences that Awakening he has sought. Instead of finding meaning and purpose by losing self, one finds self in self. One cannot escape himself; rather, he must come to know himself--and the world in which this self lives. The world, too, is reality, including the world of the senses. With this discovery Siddhartha sets off to become educated in the way(s) of the world--the way of love, the way of business, the way of social interaction. After many years he discovers, however, that this way, too, has its pitfalls. Although the world of the senses is also reality, one cannot be captured by sensuality. To do so is again to lose the self. Yet this is what happened to Siddhartha. When he comes to the realization that he has succumbed to this temptation, he leaves all behind and strikes out again in his quest for ultimate meaning.

Siddhartha's discovery of the meaninglessness which had gradually crept into his existence left him nauseated. His life had become satiated to death, and now he desires to die. Hungry and tired, he reaches the river which he has crossed many years previously after his Awakening. Here he once again hears the sound of the Om, the beginning and end of all Brahmin prayers. Uttering Om, he falls asleep. When he awakens, he is a new self. He recognizes that he *is* a rich man. He is like a child again. Fresh and eager, he seeks a new beginning. Yet he is a child who *knows*--not with the knowledge acquired from others, but with the knowledge that comes only with much experience and introspection. Finally, in this death of self he discovers a new love, the river, by which he now takes up his final abode. Why the river? It flows, it is eternal, yet it is everchanging. Becoming a ferryman, he learns how to listen to the river, to fathom its depth and timelessness. He hears many voices, and yet they are all one voice, the voice of Om. There is peace. Finally he has become one with all people

A COMPARISON OF *SIDDHARTHA* AND FOWLER'S THEORY

A comparison of Siddhartha's faith journey with Fowler's stages of faith development reveals some remarkable parallels (see Table 1). Since we meet Siddhartha as a lad already in his teens (or so the context seems to indicate), we have no description of his childhood faith experience. Here there is no parallel to Fowler. We see traces of this stage as we meet Siddhartha, but he shows that he has, along with mastering the practice of his religious tradition, started to question. He is not satisfied; he seeks deeper meaning and understanding. He has not rejected the faith of his fathers, but he seeks to expand its meaning and depth for himself. This is similar to Stage 2 faith development.

Siddhartha's attachment to the Samanas seems to move him along the way to Stage 3. Here he practices forms which have been established by others. Even the leader's anger with Siddhartha when the latter expresses his intent to leave illustrates the pressure to conform. However, Siddhartha finds the way of the Samanas insufficient. He cannot lead a life of religious conformity. He must seek further. He experiences a period of transition in which he is introduced to the way of Gotoma. While he is enchanted with the peace, the equanimity, which exudes from the person of the Buddha, he sees in the teachings of Gotoma the same shortcoming--it is still a way of conformity. He needs something more.

This questioning and doubting fits well with Fowler's Stage 4. Out of Siddhartha's ruminations comes a new awareness, an Awakening. He begins to form and practice a new way of life independent of his background. He discovers that one cannot divorce self from self, that self must also be experienced both in itself and in the context of the world around him. Yet this awareness and experience, too, runs its course, especially when Siddhartha recognizes that there are also pitfalls to this type of knowing. As he learns that self can also be lost to sensuality, he experiences another transition. His desire is to die, to put behind himself not only the life of the world but life itself.

Siddhartha, as a result of this second transition, experiences a second Awakening. He experiences life anew, but this is also a life of one who knows. At the same time, as he is integrating his past experiences into this new way of being and becoming, he still senses that something is lacking, something that is possessed by the ferryman with whom he has taken up lodging and life. As time passes, Siddhartha, too, comes to know the river, its flow, and its timelessness. Finally he, too, becomes one with all people. He experiences the universalization of his faith. He has found that for which he has sought. Although not clearly distinguished, Stages 5 and 6 can be seen as Siddhartha experiences first the integration and then the transcendence of his life/faith journey.

TABLE 1: Parallels Noted Between Fowler's Stages
and Siddhartha's Spiritual Development

Fowler's Stages	Siddhartha's Development
1. Intuitive-Projective Faith	
2. Mythic-Literal Faith	The way of his father and the Brahmins
3. Synthetic-Conventional Faith	The way of the Samanas
	Transition--The way of Gotoma

4. Individuative-Reflective Faith	The first Awakening: The way of the world and the senses
	Transition--The recognition of self lost to sensuality
5. Conjunctive Faith	The second Awakening: New life for one who knows
6. Universalizing Faith people	The way of the River--one with all

CONCLUSION

At the risk of introducing a circular argument, a couple of observations can be made. Although *Siddhartha* was certainly written without any awareness of Fowler's (or Kohlberg's or Piaget's) research, this novel does indicate that "art imitates life." The best in art allows us, sometimes forces us, to hold up our persons, our ideologies, and our institutions for closer scrutiny. Similar findings to those outlined in this paper might well be found in other literary works. At the same time, there is no evidence that Fowler had this novel in mind when he was carrying out his research and developing the theory presented here. Therefore, the findings of this brief investigation help underscore the general validity of Fowler's investigations and generalizations.

REFERENCES

Bruning, C., & Stokes, K. (1982). The hypothesis paper. In K. Stokes (Ed.), *Faith development and the adult life cycle* (pp. 17-61). New York: W. H. Sadlier.

Fowler, J. W. (1981). *Stages of faith: The psychology of human development and the quest for meaning.* San Francisco: Harper & Row.

Fowler, J. (1983, November). PT conversation: Stages of faith. *Psychology Today*, pp. 56-62.

Hesse, H. (1951). *Siddhartha* (H. Rosner, Trans.). New York: Bantam.

Trenton R. Ferro, Associate Professor and Coordinator, Adult and Community Education, 231 Stouffer Hall, Indiana University of Pennsylvania, Indiana, PA 15705; <trferro@grove.iup.edu>.

Presented at the Eastern Adult, Continuing and Distance Education Research Conference, Penn State University, University Park, PA, October 24-26, 1996.

ALTERNATIVE METHODS, ALTERNATIVE DELIVERY SYSTEMS: THE PROFESSIONAL DEVELOPMENT OF ABE PRACTITIONERS

Jaclyn M. Fowler-Frey
Sandra J. Strunk

This paper addresses the development and implementation of a professional development project conducted with a group of Pennsylvania's Adult Basic Education (ABE) practitioners. The 1995-1996 On-line Action Research Project (OAR) run by Lancaster-Lebanon Intermediate Unit 13 in cooperation with the Pennsylvania Association for Adult & Continuing Education (PAACE) linked five teams of English as a Second Language (ESL) practitioners. The OAR participant teams identified problems, situations, and/or concerns from within their own practices and used them to carry out teacher research projects through which they could affect change within their practices. Throughout the course of their individual projects, participants maintained contact with their research partners, the other participants, and the project advisors via the Internet. As participants in the project, the ABE practitioners gradually began to feel more comfortable with conducting teacher research. Moreover, the practitioners also learned a great deal about professional development via the Internet by subscribing to listservs, sending e-mail, and engaging in on-line chats.

Professional development activities are an essential component of a well-informed and well-prepared workforce. In education at all levels, an ongoing and supportive professional development agenda supports and enhances the objectives of each individual's and each institution's basic mission to positively respond to the needs of the learners. Unfortunately in the field of Adult Basic Education (ABE), neither the enhancement of its practitioners nor the needs of its learners are being met by the professional development activities that are traditionally provided even though the preparation of instructors, administrators, and volunteers is considered by the field to be one its greatest needs (Kutner, 1992).

At the individual level, there are many barriers to participating in an ongoing professional development program. Kutner (1992) asserts, for instance, that unlike teachers who are entering the K-12 or higher education venues, "many ABE . . . teachers and volunteer instructors receive little or no training, either in subject matter content or in the process of teaching . . . to adults" prior to entering the field (p.1). Fingeret & Cockley (1992) add that, once in the field, ABE professionals are generally paid far less than professionals at other levels of education, receive few, if any, benefits, and rarely receive incentives for engaging in professional development activities. Perhaps the greatest deterrent to engaging in any meaningful, long-term professional development, however, is that there are very few career opportunities within the field making professional development seem futile, if not foolish to the practitioner (Fingeret & Cockley, 1992; Foster, 1990). Thus, not only are they unprepared to enter the field but also ABE practitioners have few opportunities for effectively enhancing their professional knowledge and skills once they are in the field. Kutner (1992) maintains, therefore, that "the challenge for the adult education field is to design an effective system of staff development within the constraints of the ABE and ESL delivery system" (p. 1). It is a formidable challenge indeed.

Positive change at the systemic level also presents a formidable challenge because of the "limited financial resources for programs [to conduct professional development], the part-time nature of instruction for adults, high instructor turnover, . . . and lack of a unified adult education research base" (Kutner, 1992, p. 1). Moreover, the traditional models of professional development in ABE are based upon the perception of practitioner deficits in the repertoire of skills and knowledge that is considered necessary for good practice; therefore, professional developers design activities that use the *knowledge transmission* model in which teachers' gaps in skills and knowledge are assessed and remedied by an outside source or "expert" (Fingeret & Cockley, 1992). In this model "teachers are relatively passive recipients of knowledge that has been created by others" (Fingeret & Cockley, 1992, p. 6). Fingeret & Cockley (1992) add, moreover, that practitioners lose control of their own professional development under this model. Therefore, they have no particular stake in the developmental process nor in the professional development activities that result from it, making their participation in professional development far less certain.

Typically, the professional development of ABE practitioners "takes place through voluntary inservice offerings (e.g., workshops, conferences, seminars)" (Kutner, 1992, p. 1). This type of professional development, while better than nothing, is inadequate at best. Indeed, Pelavin Associates (1991) contend that "evidence from a variety of sources indicates that single workshops and training sessions without opportunities for follow-up are ineffective in bringing about changes in teacher . . . behavior" (p. 8). What, then, is the point of professional development activities that render no change in practice as a result of participation?

The knowledge transmission model is not only evident in the field's professional development activities but it also permeates the field's literature base as well. Research in the ABE field is very often conducted *on* rather than *by* practitioners in the field. Thus, just as they are excluded from the development and delivery of workshops, conferences, and seminars, practitioners are also divorced from most research findings (Drennon, 1994). Because they are disassociated from the research, Fingeret & Cockley (1992) point out that practitioners "are not [even] reading adult education journals. . . " to garner an understanding of the current theoretical positions of the field (p. 15). This is not surprising, however, since, according to Ross (1984), the results of research are viable only when practitioners "view research as integrated with practice rather than as a process which is conducted separately and then implemented in classroom" (Cited in Berlin & White, 1992, p. 4). Even exemplary research and its findings are rarely translated into practice by the ABE professional without this view. The potential for professional development from the results of sound research is, therefore, lost to the ABE practitioner.

RECOGNIZING THE NEED

Partly in response to the pressure from the members of the ABE field, the comprehensive *National Literacy Act of 1991* was passed which, according to Quigley (1995), "created the highest level of literacy staff development activities since the halcyon adult basic education funding days of the 1960s" (p. 61). The passage of this Act "provided the funding and the opportunity to begin building an adult literacy staff development infrastructure" (Imel, 1995, p. 1), and many State Education Agencies took the challenge. Quigley (1995) calculates that, throughout 1992-1993, at least 53 states and territories had begun to implement new professional development activities as a result of the *Literacy Act.*

With the increase in funding for professional development, the clarion call for the ABE field became the discovery of professional development methods that would enhance the professionalization of the practitioners and that would positively affect the field's response to its adult learners. In other words, as Quigley (1995) points out, the goal became to use the "new professional development funding . . . to resolve issues . . . . to professionalize, [to] create more effective policies, and [to] substantively reduce illiteracy" (p. 67). At both the individual as well as the systemic levels, therefore, a fundamental shift in the way the field viewed professional development needed to take place. Teacher-research has provided a means through which the paradigm shift can take place.

TEACHER RESEARCH

Teacher research is characterized in the professional development literature with a confusing mix of terms. Abdal-Haqq (1995) explains that "although these terms may not be completely interchangeable, a common thread running through various conceptions of teacher research is that the teacher is an active constructor of knowledge rather than a passive consumer of it" (p. 3). This type of research, according to Cumming (1994), is undertaken "for the purpose of understanding and improving . . . classroom practice" (p. 695), and it has long been recognized as a highly effective professional development activity since it is a marriage of best theory and practice. Kemmis & McTaggart (1984) explain that teacher research is a way of "trying out ideas in practice as a means of improvement and as a means of increasing knowledge . . . . It , "provides a way of working," they continue, "which links theory and practice into one whole: 'ideas-in-action'" (p. 5). It is this concept of "ideas-in-action" that provides the most benefit to the practitioners.

Moreover, because it "is teachers themselves who conduct the research, participation . . . may contribute directly both to their knowledge and practical skills" by not only improving their practice but also by giving them the research skills necessary to make them critical consumers of knowledge (Brindley, 1991, p. 90). Indeed it is very often their "first opportunity to see themselves as experts, interacting with others to generate new knowledge about teaching and learning" (Fingeret & Cockley, 1992, pp. 4-5), giving them "greater confidence in their ability to individually and collectively promote change" (Abdal-Haqq, 1995, p. 3). Teacher research empowers and encourages practitioners to participate in professional development that is more reflective, more critical of typical practice, and more ongoing than the professional development that is offered using the knowledge transmission model (Abdal-Haqq, 1995; Berlin & White, 1992; Fingeret & Cockley, 1992; Mueller, 1994).

To be sure, teacher research does not purport to look for one, infallible truth (Johnson, 1993; Mueller, 1994). In fact, it is a model through which one notices a question, concern, and/or problem in one's own practice, plans a response to it, decides on and then implements some type of action, and observes the outcome. "But," as Mueller (1994) observes, "that is not the end of it, for there is then reflection on the process undertaken so far, so that further or revised plans can be made, action taken and so on in the direction of the target of change (p. 340). In other words, the process is ongoing characterized as a reflective spiral of action and change (Johnson, 1993; Kemmis & McTaggart, 1984); Quigley, 1995). In effect, teacher research takes good practice to a deeper and more critical level.

Teacher research also provides a professional voice to the practitioner through the dissemination of his/her research findings. As Drennon (1994) points out, "the voices of practitioners have been largely absent from the field of adult literacy education research, yet practitioners are uniquely positioned to provide an inside view of practice in adult literacy education" (p. 1). It is the practitioner's time in the classroom that ultimately provides the unique researchable opportunities and the occasion to add to the knowledge base of the field (Drennon, 1994).

It is no wonder, therefore, that in the professional development initiatives that have developed as a result of the *National Literacy Act of 1991*, teacher-research has become one of the most powerful methods aimed at improving practice in Adult Basic Education (Drennon, 1994; Quigley, 1995). Indeed, in the state of Pennsylvania, teacher research has become an important component of the ongoing and supportive professional development agendas offered to the ABE practitioner through the state's regional professional development centers.

ALTERNATIVE DELIVERY SYSTEMS FOR PROFESSIONAL DEVELOPMENT

Although teacher research may be done individually or collaboratively (Collignon-Filipek, 1991), most professional development researchers contend that professional development conducted collaboratively is most effective (Johnson, 1993). LeLoup & Ponterio (1995) allege, for instance, that "continuous contact with colleagues . . . will inevitably result in a better-informed and prepared cadre of . . . practitioners" (p. 10) Moreover, collegial sharing enables the leaning that is a result of the professional development activities of one to have a greater impact when it is shared, analyzed, digested, and synthesized anew by a group of colleagues. "When practitioners view themselves as participating in a research community," assert Fingeret & Cockley (1992), "they stand in a different relationship to their daily conversations, which now become a continuing source of data . . ." (p. 16). It is, therefore, optimal to have groups of practitioners engaged in teacher research building a supportive and understanding learning community. Unfortunately, ABE professionals typically teach in low-rent or no-rent space--church basements, JTPA offices, worksites, community buildings--rather than a centralized location. Thus, ABE professionals are very often isolated one from the other (Fingeret & Cockley, 1992). It is particularly difficult, therefore, for practitioners to find colleagues with whom to share teaching strategies, questions, concerns, and insights, recruitment and assessment concerns, and professional reflection.

Fortunately the Internet holds great promise for reducing practitioner isolation thereby increasing collegial sharing among ABE practitioners. The Internet is a vast worldwide network of smaller computer networks that links millions of users (Tennant, 1992). Tennant (1992) maintains that "this high level of connectivity fosters an unparalleled degree of communication, collaboration, resource sharing, and information access" (p. 1). Thus, cyberspace is an ideal meeting ground for educators who wish to pursue professional interests with their colleagues. For the price of a local phone call, practitioners can consult with colleagues on a state or national level about materials, lesson plans, administrative tasks, grammar points, and other issues. These same practitioners may even decide to (up)download materials. Utilizing a communications network as a professional development site will enable them to learn from each other without ever having to meet face-to-face. To achieve the same result, it might take dozens of one-shot workshops, hours of independent research, money for toll calls, and/or weeks to receive information that had been sent through the traditional mail service. The Internet, according to Seguin (1994), "is the ultimate 'virtual classroom' that can be used anytime anywhere with minimal equipment" (p. 2).

The Internet offers a number of communications options for conducting and participating in professional development including e-mail (electronic mail), electronic networking, file transfer, and information databases that can be utilized for professional development opportunities. It is instantaneous. It is convenient. It is not subjected to the constraints of time and place. The Internet is, in effect, a highly effective communication venue for professional development.

THE 1995-1996 ON-LINE ACTION RESEARCH PROJECT (OAR)

During the 1995-1996 program year, Lancaster-Lebanon IU 13 in cooperation with the PAACE was awarded a special projects grant (353) to develop, implement, and evaluate a professional development model for the ABE practitioners of Pennsylvania. This pilot project was modeled after the 1992-1993 OAR project conducted by CASAS (Comprehensive Adult Student Assessment System) with a grant from the National Institute for Literacy.

The 1995-1996 Pennsylvania OAR project linked five teams of ABE professionals. The group included both instructors and administrators from English as a Second Language (ESL) programs. The project proved that the development of critical reflection using both telecommunications and teacher research holds great promise for the professional development of ABE practitioners.

PROJECT DEVELOPMENT

In developing the OAR project, the project advisors conducted an informal assessment of Pennsylvania's Staff Development Centers to ascertain the level of interest of practitioners for conducting teacher research. According to the professional developers of the Staff Development Centers, most adult educators across Pennsylvania had been somewhat reluctant to undertake teacher research projects on their own. Many attributed this reticence on the part of the practitioners to the lack of an easily accessed infrastructure for guiding first-time teacher researchers through the process. The OAR project was designed using the literature's advice, therefore, for effective teacher research. As Brindley (1991) suggested, project advisors should:

> assist by providing teacher-researchers with initial support in framing research questions; by introducing them to research tools and methods which allow them to work through their own questions . . .; by being available for consultation throughout the research process; by setting up research partnerships and/or networks . . .; and by assisting with the publication and/or dissemination of the results of teacher-conducted research. (p. 104)

Prior to beginning their individual research projects, the participants convened for a face-to-face two-day workshop. Internet training consumed the first day of training. Sending e-mail, subscribing to listservs, downloading and uploading documents, and other Internet options were introduced using a hands-on approach. Conducting teacher research was the second day's topic. The participants were shown a number of action research and practitioner inquiry models from which they could choose to conduct their own research project. Developing research questions, understanding qualitative and quantitative methods for data collection, and evaluation of results were all topics that were presented on day two.

After the initial workshop, project participants had access to two professionals who helped to guide the participants through their individual research projects. The project advisors were accessible to the participants via e-mail, telephone, and occasional site visits. This provided an ongoing and necessary support structure for the project participants. Finally, the participants were invited to share their findings at a national conference as well as through an national on-line action research database. The scheduling and preparation for the conference and the format for contributing to the on-line database were handled by the project advisors, making it fairly easy and safe for practitioners to contribute their own findings.

RESULTS

While there were some minor logistical problems, the 1995-1996 OAR project proved to be a very positive professional development activity for the participants. The two most important outcomes of the project for the participants themselves were the development of collegial ties and the development of a personal reflective practice. Indeed, the spirit of collegiality that developed among the participants (as well as among subscribers to a number of professional listservs) was the most often cited benefit of the project. Traditionally isolated practitioners were not only introduced to other practitioners but were also encouraged to communicate regularly with a research partner, the other participants and the project advisors. "It was great," as one participant said, "to know that there were others doing the same thing in the same types of places as me".

The second benefit of the project most often cited by the participants was a desire to question, analyze, and reflect on their practices on a daily basis. Many of the participants had begun to keep daily reflective journals, and many had continued to conduct teacher research even after the program year (and, therefore, stipend) ended.

The 1995-1996 OAR project showed that teacher research is indeed an empowering experience for the practitioner (Abdal-Haqq, 1995; Berlin & White, 1992; Fingeret & Cockley, 1992; Mueller, 1994). Indeed, the participants of this project have made changes in their practices and in their programs at large that have contributed to better service for the ABE learners in Pennsylvania.

WORKS CITED

Abdal-Haqq, I. (1995). ERIC as a resource for the teacher researcher. ERIC Digest. Washington, DC: ERIC Clearinghouse on Teaching and Teacher Education.

Berlin, D.F., & White, A.L. (1992). Action research as a solution to the problem of knowledge utilization. Symposium: What Should Scientific Research Look Like in Science Education? San Francisco, CA.

Brindley, G. (1991). Becoming a researcher: Teacher-conducted research and professional growth. In E. Sadtono, (Ed.), Issues in Language Teacher Education: Anthology Series, 30. (ERIC Document Reproduction Service No. 370 362)

Collignon-Filipek, F., et. al. (1991). ESL/Literacy for adult non-native speakers of English: A handbook for practitioners. Providence, RI: International Institute of Rhode Island. (ERIC Document Reproduction Service No. 339 252)

Cumming, A. (1994). Alternatives in TESOL research: Descriptive, interpretive, and ideological orientations. TESOL Quarterly, 28(4), 673-703.

Drennon, C. (1994). Adult literacy practitioners as researchers. ERIC Digest. Washington, DC: National Clearinghouse for ESL Literacy Education.

Fingeret, H.A., & Cockley, S. (1992). Teachers' learning: An evaluation of ABE staff development in Virginia. Dayton, VA: The Virginia Adult Educator's Research Network. (ERIC Document Reproduction Service No. 356 406).

Imel, S. (1995). Trends and Issues Alerts: Adult Literacy Staff Development. ERIC Digest. Washington, DC: ERIC Clearinghouse on Teacher Education.

Johnson, B. (1993). Teacher-as-Researcher. ERIC Digest. Washington, DC: ERIC Clearinghouse on Teacher Education. (ERIC Document Reproduction Service No. 355 205)

Kemmis, S., & McTaggart, R. (1984). The action research planner. Victoria Australia: Deaken University.

Kutner, M. (1992). Staff development for ABE and ESL teachers and volunteers. ERIC Digest. Washington, DC: Adjunct ERIC Clearinghouse on Literacy Education for Limited-English Proficient Adults. (ERIC Document Reproduction Service No. 353 862)

LeLoup, J.W, & Ponterio, R. (1995). Networking with foreign language colleagues: Professional development on the Internet. Northeast Conference Newsletter, 37, p. 6-10. (ERIC Document Reproduction Service No. 383 169)

Mueller, A. (1994). Action research contributes more to teaching than just solving discrete problems in the classroom. In Bird, N., et. al. (Eds.), Language and Learning. Paper Presented at the Annual International Language in Education Conference. Hong Kong. (ERIC Document Reproduction Service No. 386 058)

Pelavin Associates, Inc. (1991). Study of ABE/ESL instructor training approaches: Key elements of adult education teacher and volunteer training programs. Washington, DC: Pelavin Associates.

Quigley, A. (1995). Action research for professional development and policy formation in literacy education. PAACE Journal of Lifelong Learning, 4, 61-69.

Seguin, A. (1994). Using the Internet in professional development. Paper Presented at the American Vocational Education Professional Development Association: American Vocational Association. Dallas, TX. (ERIC Document Reproduction Service No. 379 428)

Tennant, R. (1992). Internet basics. ERIC Digest. Syracuse, NY: Clearinghouse of Information Resources.

Jaclyn M. Fowler-Frey , Professional Developer. (jmf105@aol.com)
Sandra J. Strunk, Coordinator, Southeast Professional Development Center. (SEPDC@aol.com)
SEPDC, 1 Cumberland Street, Lebanon, PA 17042. (717) 274-

Presented at the Eastern Adult, Continuing and Distance Education Research Conference, Penn State University, University Park, PA, October 24-26, 1996.

A REVIEW OF LITERATURE: IMPROVING INSTRUCTORS' SPEAKING SKILLS

Barbara A. Frey

Abstract

This study reviewed the literature on public speaking and presentation skills as they relate to instructors or trainers in adult education. Most of the literature was in the fields of speech communication and higher education. The studies reviewed supported a relationship between effective presentation skills and student learning, achievement, satisfaction, and motivation. Attention is viewed as selective and fluctuating through a presentation. Effective delivery aids in the attention, comprehension, and retention of a message. Verbal and nonverbal characteristics of effective presenters are discussed. Evidence also supports the ability to train speakers to be clearer in their instructional presentations and enhance student learning.

INTRODUCTION

Many aspects of teacher-directed instruction involves public speaking presentation skills in the forms of delivering lectures, leading class discussions, asking questions, and directing small group activities. Instructors have devoted years of their life to becoming knowledgeable content experts in their field of study; however, this does not guarantee the ability to orally communicate information effectively to their students. The majority of faculty members develop their instructional delivery skills through trial and error.

Goulden (1991) noted "researchers have found that students whose teachers use dynamic, vocally skillful delivery are more successful at both comprehending and retaining information than are students whose teachers have weak presentation skills" (p.3). Synder and others (1993) write "research throughout the seventies and eighties has established the importance of instructional clarity in modifying student achievement and satisfaction" (p. 1). Metcalf and Cruickshank (1991) concluded that preservice teachers could be trained to be clearer in their instructional presentations. They noted "teacher clarity has been found to bear a significant, positive relationship to student learning and satisfaction from the elementary grades through university level" (p. 107).

The purpose of this paper is to review the literature on presentation skills, especially as it relates to instructors and trainers in the teaching of adults. The content focuses on qualities of effective presentations/presenters. For purposes of this paper, the terms presentation skills and public speaking skills are used interchangeably.

EFFECTIVE INSTRUCTIONAL DELIVERY

Much of the literature reviewed on speaking effectiveness and delivery comes from the theories of speech communication and/or higher education. The qualities of any effective speaker include both verbal and nonverbal behaviors. Gundersen and Hopper (1976) conducted their research on the relationship between speech delivery and speech effectiveness. They noted that poor vocal quality, pitch patterns and nonfluencies seemed not to have any relationship to audience recall and comprehension. Gestures, pauses, raising the voice, visual aids, and eye contact did seem to be related to recall and comprehension effectiveness. Their six independent variables consisted of three verbal and three nonverbal behaviors: vocal volume, rate of speech, voice quality, posture, gesture, and body movement. The three dependent variables were recall/ comprehension, attitude change, and ethos. Gundersen and Hopper suggested that aspects of speech delivery were secondary to content composition.

Beebe (1974) quantified and supported the importance of direct eye contact to perceived speaker credibility. Speakers with good eye contact were consistently perceived as possessing more credibility. Beebe specifically studied eye contact as an independent variable. The dependent variable of credibility included perceptions of qualification, dynamism, and honesty. "An increase in the amount of eye contact generate by a speaker in a public speaking situation will significantly enhance the listeners' perception of the speaker's credibility" (p. 22).

Coats and Smidchens (1966) concluded that audiences remember more from a dynamic lecture than from a static lecture. They made the assumptions that attention is selective, attention is fluctuating, and attention to some part of a statement is necessary if one is to remember the message. They described speaker dynamism as change or variety, animation, and power in the speaker. Dynamic speeches in their study were "delivered from memory, with much vocal inflection, gesturing, eye contact, and animation on the part of the speaker" (p. 190).

Bush and others (1977) investigated instructional clarity in observable terms. Even though their subjects were ninth grade students, the method of research is valuable to adult educators and has implications for training of teachers. One-hundred-and-ten low-inference behaviors used by clear teachers were compiled by Cruickshank and Myers in 1975 and used in this study by Bush. Many of the behaviors identified were basic skills of public speaking, such as pronounces words distinctly, speaks with expression, explains by telling a story, tells humorous stories when explaining, and explains something and then stops so students can think about it. The students rated their most clear teachers as explaining concepts in an understandable manner, at an appropriate pace, and involving use of examples and illustrations in presenting material.

Snyder and others (1991) noted "instructional clarity to be the most important instructor variable influencing student achievement" (p.2). Instructional clarity is described as a cluster of instructor behaviors that contain appropriate use of 1. keys (main ideas), 2. links (logically related keys), 3. framing (set the context), 4. focusing (center attention on keys), and 5. examples. Instructional clarity avoids vague terms and mazes (false starts, halts in speech, or redundantly spoken words). Students presented with lessons containing positive instructional clarity achieved more than the control, especially in the areas of defining, identifying, and applying concepts.
Achievement was negatively affected by unclear presentations, even when material was well-structured.

Snyder and others (1993) expanded their earlier research on instructional clarity to discover that instructional clarity variables significantly improved student motivation and conceptual achievement. Focusing tended to be more important than links in student motivation; and links affected the achievement of students more than focusing. Synder noted that focusing "seems to be an extremely important skill to teach future instructors due to the fact that student motivation is one of the main complaints of teachers..." (p. 20).

Metcalf and Cruickshank (1991) studied whether 1. preservice teachers can be trained to be clearer in their instruction, 2. trained teachers produce greater student learning, and 3. trained teachers produce greater learner satisfaction. In a modified Solomon Four Group Design, an experimental group received eight weeks of training in 17 behaviors that students believe make instruction clearer. The analyses of data indicated that training produced significant improvements in teacher's clarity and in the ability to produce significantly more learning. However, no evidence was shown that clarity impacts significantly on teachers' ability to engender increased student satisfaction, or that increasing instructional clarity causes increased learner satisfaction.

Weiss and others (1988) noted the use of public speaking skills for eliminating classroom management problems, such as poor note taking by students, poor performance on tests, and the poor rapport between students and faculty. Their suggestions included orient the audience, gain attention of the audience through an interesting story, quote or humorous incidence, and summarize material to provide closure. Furthermore, they recommend lectures be organized using headlines and outlines to distinguish main points. Boredom of students may be reduced by using expression, volume, inflection, enthusiasm, and visual aids as stimuli.

Goulden (1991) recommended two means leading to effective speaking for instructors: 1. the elimination of distractors, and 2. the use of the voice and body to deliver the message so the presentation seems effortless. She developed a list of 32 recommendations for instructors who wish to improve their classroom delivery. See Appendix E. Her recommendations focus of improving 1. vocal delivery, 2. positive vocal strategies, 3. use of the body, and 4. positive body delivery characteristics. Effective delivery is determined by both positive and negative elements. Speaker credibility depends on the students' perception of the instructor as a competent, trustworthy, sincere, attractive, and dynamic. These attributes tends to be conveyed to an audience through nonverbal aspects of delivery, such as eye contact, mannerisms, or vocal pitch. "If there is a conflict between verbal and nonverbal messages, audiences tend to believe the nonverbal message and reject the verbal" (p. 3).

Cantor (1992) writes in her book *Delivering Instruction to Adult Learners* "research indicates that when high frequency or more common words are used, learning is faster and retention is longer" (p. 23). When teaching adults, she stresses the use of easy words and simple sentences in a natural, conversational manner. Cantor also noted the common interpretation of various forms of nonverbal behaviors, such as foot tapping which may be interpreted as impatience, boredom, or disgust.

Patricia Hayes Andrews (1989) discussed the importance of planning and preparing for effective lectures. She suggested anticipating the teaching environment through analysis of the classroom and analysis of the students. Lecturing combined with other teaching strategies improves instructional effectiveness. "Research has shown that typical student attention spans are limited to about 15-20 minutes" (p. 5). Pausing after a question showed "that the number of student responses increased by 80%" (p. 5). Visual aids enhance the effectiveness of instruction by reinforcing the lecture content. Andrews encouraged planned, extemporaneous speaking with an awareness of fillers, such as "you know," "um," or "oaky." She suggested that these basic communication skills improve the effectiveness of a lecture.

Burgoon, Birk, and Pfau (1990) examined speaker nonverbal behaviors and the relationship to persuasiveness and credibility. Credibility included the dimensions of competence, character, sociability, composure, and dynamism. Their results confirmed numerous associations between nonverbal behaviors and perception of credibility and persuasiveness. Greater perceived competence and composure were associated with greater vocal and facial pleasantness. Facial expressiveness contributed to competence perceptions. Greater sociability was associated with more kinesic/proxemic immediacy, dominance, and relaxation and with vocal\pleasantness. Persuasiveness was also associated with frequent and longer eye contact, smiles, nodding, gestures, and moderate relaxation.

Vohs (1964) studied the concept of attention which he recognized as "selectivity of response" and "an act, not a state" (p. 355). He studied delivery as a variable which could possibly enhance effective communication. "Good delivery as one of its main functions presumably helps to offset distractions and to gain and help maintain the hearer's attention" (p. 356). His experimental design compared good and poor delivery under conditions of distraction. The results showed higher retention from a presentation which was well delivered. Good delivery increased the information-handling capacity even for the subjects performing the most complex distracting tasks.

McKeachie (1986) noted that lecturing has value apart from it's cognitive content. An affectively presented lecture may also motivate students. "Research on student ratings of teaching as well as on student learning indicates that the enthusiasm of the lecturer is an important factor in effecting student learning and motivation" (p. 71). Lectures may be improved by thinking about how students process lectures. During a lecture, "attention typically increased from the beginning of the lecture to ten minutes into the lecture and decreases after that point." (p. 72). Lecture students recalled 70 percent of the material covered in the first ten minutes and only 20 percent of the material covered in the last ten minutes.

McKeachie recommended a variety of strategies for maintaining student attention during a lecture presentation. One way is to preceded the important information with the phrase, "This will be on the test" (p. 73). Changes in the environment generally re-earn student attention. "Variation in pitch, intensity, and pace of the lecture, and visual cues such as gestures, facial expression, movement to the blackboard, use of demonstrations or audio-visual aids - all of these recruit and maintain attention to the lecture" (p. 73). Furthermore, McKeachie noted there is "some evidence that students' comprehension is greater when the students can see the speaker's face and lips" (p. 73).

Gelb (1988) recommended five keys for building audience recall into a presentation. First, he suggested to begin powerfully by making contact both emotionally and with the eyes. This includes giving the audience on overview of the presentation. Second, he stated to repeat regularly. Third, emphasize key points in a humorous, outstanding, or unusual way. Fourth, involve the audience through discussion, exercises, questions, or activities. Fifth, end powerfully as recall is highest at the end of a presentation. Emphasize major points before closing the presentation. Gelb noted the importance of starting on time and giving regular breaks to create a comfortable, learning environment.

CONCLUSION

The literature on effective presentation skills in the field of adult education is limited. The majority of research comes from the areas of communication and higher education. The ability to speak well is an acquired skill required by instructors with even the most participatory view of teaching and learning. Metcalf and Cruickshank (1991) noted "student perception of teacher clarity essentially is stable, that is, it does not differ across different age groups of students, across students from different geographic regions, nor according to subject being taught. Further, clear teachers are clear across varying content, learner groups, and teaching episodes" (p. 107).

Of primary importance is the knowledge and experience instructors bring to the classroom. The challenge of teaching is effectively communicating this knowledge of course content and enthusiasm for learning to the students. There is significant research to relate quality of education to the presentation skills of instructors. Instructors can master effective speaking skills and structure their presentations to enhance student learning, achievement, satisfaction, and motivation.

REFERENCES

Andrews, P.H. (1989). Improving lecturing skills: Some insight from speech communication. Bloomington, IN: Teaching and Learning at Indiana University Series. (ERIC Document Reproduction Service No. ED 303 839)

Beebe, S.A. (1974). Eye contact: A nonverbal determinant of speaker credibility. *Speech Teacher, 23*(1), 21-25.

Burgoon, J.K. Pfau, M. Birk, T. & Manusov V. (1987). Nonverbal communication performance and perceptions associated with reticence: Replications and classroom implications. *Communication Education, 36*(2), 119-130.

Bush, A.J. & others. (1977). *An empirical investigation of teacher clarity.* New York: Annual Meeting of American Educational Research Association. (ERIC Document Reproduction Service No. ED 137 234)

Cantor, J.A. (1992). *Delivering instruction to adult learners.* Toronto, Canada: Wall & Emerson, Inc.

Coats, W.D. & Smidchens, U. (1966). Audience recall as a function of speaker dynamism. *Journal of Educational Psychology, 57*(4), 189-191.

Gelb, M.J. (1988). *Present yourself.* Torrence, CA: Jalmar Press.

Gouldren, N.R. (1991). *IDEA paper no. 24: Improving instructor's speaking skills.* Manhatten, KS: Kansas State University Center for Faculty Development in Higher Education. (ERIC Document Reproduction Service No. ED 339 052)

Gundersen, D.F. & Hopper, R. (1976). Relationships between speech delivery and speech effectiveness. *Communication Monographs, 43*(2), 138-141.

McKeachie, W.J. (1986). *Teaching Tips: A guidebook for the beginning college teacher.* Lexington, MA: D.C. Heath and Company.

Metcalf, K.K. & Cruickshank, D.R. (1991). Can teachers be trained to make clear presentations? *Journal of Educational Research, 85*(2), 107-116.

Snyder, S.J. & others. (1991). *The effects of institutional clarity and concept structure on student achievement and perception.* Chicago, IL: Annual Meeting of the American Educational Research Association. (ERIC Document Reproduction Service No. ED 331 809)

Snyder, S.J. & others. (1993). *Instructional clarity: The role of linking and focusing of student achievement, motivation, and satisfaction.* Atlanta, GA: Annual Meetings of American Educational Research Association. (ERIC Document Reproduction Service No. ED 362 507)

Vohs, J.L. (1964). An empirical approach to the concept of attention. *Communication Monographs, 31*(4), 355-360.

Weiss, P.E. & others. (1988). *Using public-speaking skills for teaching improvement in the classroom.* (ERIC Document Reproduction Service No. ED 294 259)

Barbara A. Frey, The Art Institute of Pittsburgh, 526 Penn Avenue, Pittsburgh, PA 15222
e-mail: bhf104@psu.edu

Presented at the Eastern Adult, Continuing and Distance Education Conference, Penn State University, University Park, PA, October 24-26, 1996.

POLAND: HIGHER EDUCATION IN TRANSITION

K. Godel Gengenbach, Ph.D. and Janusz Bromboszcz, M.D., Ph.D.

ABSTRACT

With the shift from a planned system of governance in Poland in 1989 came a period of transition while institutions adapted to a democratic system and a market economy. Higher education has been called upon to provide the training people need to understand and work in a democratic, market economy system. This paper addresses the historic precedents in education and explores ways for higher education to meet the educational needs of the adult population, including open enrollments, postgraduate courses, and self-paced learning. Much of the effort to meet current educational needs in business and economics is taking place in the private sector which may be motivated more by profit than educational goals. This paper suggests that the universities are in a unique position to offer academically rigorous courses which can improve the skills of a displaced or underskilled workforce, contribute to the professionalization of administrators, medical personnel and others, and provide revenue to support the institution.

INTRODUCTION

The introduction of a democratic system of governance and the concurrent shift toward a market economy heralded the beginnings of a cultural transition in Poland which was to significantly affect higher education. This paper describes the development of alternative educational programs for adults in Poland using examples from the fields of allied healthcare and business management education in Southern Poland. These developments in the higher educational system are compared to the educational system in existence at the end of the 1980s, when the communist political institutions and systems of social control collapsed. The presentation focus' on the evolution of a new educational paradigm which includes offering postgraduate courses for working professionals, part-time educational opportunities, and systemic change in both institutions and programs offered by Poland's higher education institutions. Final comments will address the outlook for the next few years, including opportunities and constraints to the further development of a lifelong learning philosophy which embraces the needs of the Polish population.

PERSPECTIVES ON THE POLISH EDUCATIONAL SYSTEM

From the perspective of integration with European Union (EU) education systems, the Polish system faces also the problem of adjusting to already existing and newly developing standards, including different degree structures, program requirements, and transferability issues. Medical and allied health science education is especially sensitive to the issues of professional standards. When the labor markets in Europe open fully to Polish health professionals they must be prepared adequately. Unfortunately, Polish medical and allied health education still await reformation.

"Until 1990, ...only one in five high-school graduates went on to college." (Warsaw Voice 1995:12) Upon completion of a primary school education, Polish students have a number of options. Three year basic vocational programs for primary school graduates teach the mechanics of specialized work activities with a goal to integrate people as blue-collar workers in the mostly industrial operations of state-owned enterprises. Students can also opt to attend a four-to-five year technical school which provides roughly the equivalent of a secondary school diploma. The technicians who graduate from these programs are qualified for technical supervisory positions. There are also vocational secondary schools whose graduates obtain the secondary school certificate (matura) and a professional diploma. General secondary schools are charged with the preparation of students for university level studies at four year colleges. The biggest criticism of this vocational educational system centered on the narrowness of its offerings, "making it difficult and sometimes next to impossible to master skills other than those acquired at schools, skills that require a proper intellectual background." (Task Force for Training & Human Resources, Cooperation Fund: 1994:6) Furthermore the Task Force found administrative structures and personnel to be reticent to introducing reforms which would make the educational programs more relevant to market needs, courses covering topics which were no longer relevant, and lack of financing for necessary changes. The Task Force recommended the broadening of vocational programs to include knowledge which would enable the graduate to acquire skills and qualifications through other types of professional training.

In 1952 higher educational institutions, including Universities, Schools of Economics, Agriculture, Polytechnics, Pedagogical Schools, Medical Academies, Schools of Arts, Drama, Music, Physical Education, enrolled 129,994 students. (Simon 1955: 63) Today there are over 100 higher education units enrolling approximately 700,000 students (Warsaw Voice 1995:12) After 1991 private higher education colleges were permitted provided they met the requirements of the Ministry of National Education. These new private colleges focused primarily on business and business management programs offering licentiate titles after a three year course of study. They arose in part because of the need for trained managers for the evolving market economy, and in part because of the entrenched attitudes toward curricula by university administrators. The Ministry has subsequently granted permission for a few private institutions to grant master's titles to its graduates.

Since 1991 students have been able to enroll in part-time study programs, mostly offered in the evenings and on weekends. Currently approximately 250,000 students are enrolled in part-time programs. Because part-time educational programs are fee-based, some state owned institutions have begun to offer the three year licentiate diploma and will allow a student to enroll subsequently in the master's program (pending satisfactory completion of the entrance examination).

Until 1989 and the collapse of the totalitarian system of government, all educational programs were determined by the central government and courses were offered at state-owned institutions. Education was largely free of charge for qualified students who could receive stipendiums during their period of study which covered basic living expenses. Curricula were approved by the Ministry of Education and faculty were cautious about deviating from the required topics of study. The Institute of Educational Research, in its report of 1992 characterized the educational system as "marked by excessive didacticism, over-loading of curricula and official indoctrination (1992:21)." Others have remarked that the educational system, in fact, was an extension of a Lenin philosophy insofar as education existed to further political propaganda. "Schools were supposed to turn out citizens capable of being active and "cooperative" members of the new technological-industrial and Socialist community (Fiszman 1972:6)." This resulted in a rigid system of education, based on the accumulation of approved factual material that could be repeated without discourse or interpretation. Faculty lectured. There was little incentive to develop new and innovative teaching methods. Students listened and made notes. Exams were held at the end of the semester and students parroted back what they had been told. The cycle was repeated with little variation. In the centralized system deviating from the approved curricula could jeopardize both the faculty (who were expected to be "...a united Marxist army of educators..." (Fiszman 1972:199)) member and the student for failure to conform to the prescribed monopolitical model. Faculty who had been trained in the centralist model, and accustomed to teaching by the lecture method are still among the teaching faculty and many have not adapted their courses to include new learning strategies or assessment styles. Some continue to believe that the accumulation of extensive factual based knowledge is an appropriate outcome for the educational process. Hence, the development of critical thinking skills among students was not encouraged in the past and has only limited acceptance in the current system.

Under the constitution of Poland, education is generally free for regularly enrolled students admitted to a degree program. Admission to a degree program is by examination. In 1992, 90 students per 10,000 inhabitants attended institutions of higher education. The only available option for students either failing or denied a place because of the number of students with a higher scoring entrance examination to a university was to enroll in fee-based evening courses as special, non-degree students or attend one of the technical schools. After a year or so of study a student could retake the entrance examination and hope to be admitted to a degree program. Traditionally a student was only allowed to apply to one institution. Entrance examination scores were not routed to other institutions because each institution set its own standards for admission. For the student who did not make the academic cut, this usually meant a year of waiting until the next examination was given.

There was limited encouragement of education for older students whose interests or career goals had changed, students whose career choices had not been determined, or postgraduate voluntary education leading to the coveted master's degree. The most viable option was to enroll in a technical program, but even those tended not to overtly seek the non-traditional student. After 1991, the non-traditional student could enroll in a private post-secondary school and pay tuition and fees. Generally these schools require no admission examination but only proof of a secondary school diploma.

In the traditional system classes were held in the daytime, using a modular system with few "elective" choices for the student. The program of study was, and continues to be, extensive. Most students considered the educational process to be a full-time occupation at the post-secondary level. Students were required to successfully complete nearly all modules in a year before they were allowed to advance to the subsequent year of study. Failure in one module could preclude movement to the next level. Furthermore, after 1991 students were obliged to pay the equivalent of a full year's tuition to retake the failed module. Because students wish to advance to the next level a system has arisen wherein faculty will re-test students several times to avert a course failure. Students develop and use extensive crib sheets, and a pass is almost guaranteed after the second year of study except for the most flagrant lack of interest or diligence. Unfortunately, Chmielecka remarks, "students are more concerned with successfully meeting all the course requirements than with acquiring professional skills, and in this they are supported by the educational institutions themselves." (Chmielecka 1994:34)

With respect to modular education and curricula design, the 1994 Report of the Task Force for Training and Human Resources noted that much needed management skills education in technical programs was limited or non-existent. Further, "Students ... must acquire managerial knowledge outside their school curricula. Future pharmacists are not taught how to open a pharmacy, future farmers --how to run a farm, and future engineers are not exposed even to the basics of managing a company. (Chmielecka 1994:23) Many agree with Dietl: „The rigid modular system of proscribed courses must be changed and tailored to "the realization of a project connected with the student's future career, and helping to develop in him a unique set of abilities." (Dietl 1994:59)

This system remains virtually unchanged at the university level; however, recently market forces have created an opportunity for the development of part-time voluntary education geared to underskilled adults, part-time students and working professionals.

Faced with the need to train people to function in a market economy, Universities quickly developed and introduced business management programs. Assistance to develop such programs came through US government and European Union aid funds. Further, proprietary schools arose focusing primarily on the need for management training and English language courses. The target market was and continues to be entry and mid-level managers of existing and developing business enterprises.

Faculty, who were poorly paid in the centralized educational system, flocked to jobs in private sector schools. This has created a system where faculty often teach at competing institutions, both public and private. Some saw these schools simply as a means to offset an inflationary eroded standard of living. Many took with them the teaching strategies that had been successful during the communist era but are less than effective in the current climate. Others saw this as an opportunity to introduce new teaching strategies, including those which focused on developing higher level thinking skills. Nearly all have found their time and energies severely constrained.

People who had previously given up hope of attending a university gained an opportunity to acquire skills through attendance in proprietary programs either through an agreement with their employer or on their own initiative. Participation in most University based management programs offered on a part-time basis resembled the proprietary programs rather than University degree generating programs, with parallel outcomes. The institutional affiliation of university based programs did, however, give the student a more prestigious certificate.

There are 14.3 million working age people in a population of 38 million in Poland. The Ministry of Labor and Social Policy reported 15.8 percent of the working age population was unemployed compared to 16.0 percent in 1994. Over half of the population are women and half of the women are under age 25. (Source: Warsaw Voice Yearbook, 1995:58 and Polish News Bulletin, 18 August 95:3) Programs which could provide re-training for this population are severely limited by budget cutbacks, the elimination of work-based training programs, and a lack of capital to participate in proprietary educational programs.

Universities, with their reputation for intellectual rigor and honesty should have been in a good position to develop programs for the voluntary adult learner. Their faculties were and are knowledgeable and recognized in their respective fields. They have classroom space that is often unused after 5:00 most days. The University reputation of producing qualified professionals is recognized throughout the country. And yet, universities are only now beginning to realize the potential in this market, the potential for Poland as a nation, and the value to students.

Allied health professions schools are, in most cases, organized as post-secondary or post-matriculation schools, providing a professional certificate. Graduates do not meet the criteria of higher education standards. Only nursing, kinestherapy and medical lab diagnostics are taught at the university level culminating in a master's degree. If graduates from the physiotherapy post-secondary schools want to achieve a master's degree, they must repeat all professional modules. Therefore, in most cases they choose paid correspondence courses (a four year program) which often still does not achieve the educational standards of a university level curriculum.

Plans call to reform the allied health program to a three-year university level program, roughly equivalent to a bachelor degree in the U.S. Graduates would then be offered an opportunity to enroll in a university level master degree program. Such colleges could be organized in towns which until now have no higher education schools.

Currently in the Krakow district, with about 1,250,000 inhabitants, there are eight medical schools graduating approximately 1000 per year. (Wydzial Zdrowia 1995) These schools have to restructure existing courses and develop new programs for allied health specialists. Further, the system of postgraduate education for healthcare professionals needs important changes. Currently postgraduate education is organized as a system for achieving an area of specialization. Courses and obligatory practicums are the most important part of postgraduate education for physicians, dentists, pharmacists and nurses. In the Krakow region in 1994 approximately 1850 physicians and dentists of approximately 5100 were taking postgraduate specialization courses.

In the past nearly all postgraduate courses were offered free by special state institutions (such as centers for postgraduate medical education). These institutions still exist but due to budget shortcuts the centrally controlled system offers fewer courses. Furthermore, the state is unable to pay adequate salaries for instructors. On the other hand, paid courses organized by medical academies, health service units, foundations and medical publishers are on the increase but are directly mainly toward physicians, dentists and pharmacists and rarely to allied health professionals.

The Physiotherapy Studies Group of the Jagiellonian University Collegium Medicum has organized a series of postgraduate courses for the working healthcare professional. When surveyed these workers requested affordable courses in business management, human resource management and contemporary medical techniques. Citing "personal satisfaction" and "to gain skills that would enable them to keep their positions" respondents requested evening and weekend courses, self-paced and computer-mediated courses. Their concern for affordability is real since salaries average less than $250 per month. For people in smaller communities distant from the medical academies, bringing these courses to their community is an important contribution. They have also asked that a record be maintained in the Jagiellonian University, optimistic that their efforts will ultimately result in an advanced degree and better pay.

Today, efforts lacking overall coordination for postgraduate education and subsequent credentialling or recognition of academic achievement from the central government or even the university structures with a few notable exceptions, are characteristic. Courses are being offered but without a credit transfer system or a structure for the accumulation of credits toward a degree within an institution. Students are often not allowed to „take just one course" but must, for example, „pay up to 30 million old Zloty for a year long program." This amount of money (approximately $1200) exceeds their financial capacity. Further, the student receives only a certificate of participation, which may or may not have economic value in the marketplace. Only with special review are certificates acceptable toward a degree program.

While the Educational Act of 1991 makes provision for „introducing the idea of a university open to all, including those who are not students and will not take examinations" (Institute of Educational Research 1992: 27) students rarely have the opportunity to enroll in a single course. If courses were made available under an open enrollment process, students would be satisfied and the University could collect revenue to support its activities.

Courses taught in the evening are costly and usually do not result in a degree. Some proprietary school administrators remark privately that their first obligation is to become profitable. If a student fails, he or she will pass the word along and others will not enroll in the program. Therefore, it follows that faculty evaluate the student's progress with an eye toward profitability. Profitability may take precedence over academic rigor. Dietl concurs also stating that curricula tend to remain static and traditional. Additionally, there should be some minimum standards of knowledge to be acquired at least until accreditation systems are in place. For a diploma to be recognized and accepted, there must be some uniformity of learning.

CONCLUSIONS

Poland has undergone some radical changes since 1989. Unfortunately all the problems created during 45 years of socialism cannot be resolved overnight. Progress is being made on many fronts and education is also changing. The system does need to consider the adult learner who has lost a job due to redundancy, wishes to improve his or her skills, or is simply interested in learning new things. This population has limited chance to participate in higher education programs and needs to be coaxed gently into appreciating that it has the ability to be successful in the academic environment. Further, higher education should seek opportunities to meet the on-going needs of working professionals, even to the recognition of academic credits which can subsequently be applied toward a degree. Higher education has an opportunity to provide courses which will improve the educational level of its population and generate much needed revenue to support the educational system. Polish people have a remarkable tenacity and sense of purpose. One suspects that educational change will be as dramatic as the political and economic changes of the 1990's.

REFERENCES

Chmielecka, Ewa
1994a "Research Report" in Management Education in Poland Facts and Assessments. Task Force for Training & Human Resources; Cooperation Fund. Warsaw.

1994b "Development tendencies in Management Education in Poland" in Management Education in Poland Facts and Assessments. Task Force for Training & Human Resources; Cooperation Fund. Warsaw.
Dietl, Jerzy
1994" Academic Management Education" in Management Education in Poland Facts and Assessments. Task Force for Training & Human Resources; Cooperation Fund. Warsaw.
Fiszman, Joseph R.
1972 Revolution and Tradition in People's Poland. Princeton University Press. Institute of Educational Research
Institute of Educational Research
1992 The Development of Education in Poland in 1990-1991. Report for the International Bureau of Education in Geneva.. Institute of Educational Research. Warsaw.
Polish News Bulletin of the British and American Embassies:
1995 Economic Review. # 64-95 (18 August 1995). PNB, 19 Wiejska, 00-480 Warsaw.
Simon, Brian
1955 Education in the New Poland. Lawrence & Wishart Ltd. London
Task Force for Training & Human Resources
1994 Info, 1/94. Cooperation Fund, Warsaw.
The Warsaw Voice
1995 Out of the Past, Into the Future Poland: An Emerging Market. Drukarnia Prasowa S.A., Lodz.
Wydzia3 Zdrowia Urzedu Wojewodzkiego w Krakowie
1995 Biuletyn Statystyczny. S3u¿by Zdrowia Wojewodztwa Krakowskiego, Rok 1994. Krakow.

K. Godel Gengenbach, Ph.D., Consultant
Janusz Bromboszcz, MD, Ph.D.

Jagiellonian University - Collegium Medicum
ul. Kopernika 25
31-501 Krakow, POLAND
Presented at the Eastern Adult, Continuing and Distance Education Research Conference, Penn State University, University Park, PA, October 24-26, 1996.

PROFESSIONAL DEVELOPMENT FOR SUSTAINABLE AGRICULTURE EDUCATORS THROUGH SAED-SHARE-L ELECTRONIC CONFERENCE

Nancy Grudens-Schuck
Steven G. Hall
Molly D. Anderson
Jill Shore Auburn
Kim Staritzky

ABSTRACT

To address previously identified needs of sustainable agriculture educators, a national sustainable agriculture organization founded an electronic conference called *SAEd-Share-L*. This paper presents results of a two-part evaluation of the SAEd-Share-L Internet (e-mail) discussion list. The first phase of the evaluation analyzed characteristics of subscribers, and categorized posts by topic. The second phase of the evaluation uses a participatory evaluation framework, conducted collaboratively by the list manager and four list subscribers. The second phase of the evaluation is intended to shape the future of the list by involving subscribers in interpreting results of evaluation surveys, and planning future activities stimulated by the data. The evaluation provides a forum for discussion of individuals' satisfaction level with topics, posts, and communication among subscribers. Both phases of the evaluation explore issues related to use of an Internet-based innovation in professional development. As of the submission date for these proceedings, the second phase of the evaluation was still in progress. Comprehensive results therefore will be shared at the conference session.

INTRODUCTION

Agricultural educators who teach environmental and social sustainability issues in agriculture require support that addresses both the controversial nature of the subject matter, and the paucity of educational materials that directly support their programs. Moreover, sustainable agriculture educators who work in contexts that are nontraditional for agricultural educators, such as non-profit organizations and liberal arts colleges, do not have ready access to support structures from which agricultural educators in land grant colleges and vocational agriculture programs may benefit. Moreover, sustainable agriculture educators may feel isolated from colleagues who work in more traditional areas of agricultural education (Auburn, forthcoming; Kloppenburg, 1991). Needs of sustainable agriculture educators were elicited by a survey conducted by the Consortium for Sustainable Agriculture Research and Education (CSARE) in 1994.

Needs:

(1) Collect and share curricula and course syllabi for college courses in sustainable agriculture
(2) Develop an identity of 'sustainable agriculture educators' that includes colleagues from institutions that are nontraditional for agricultural educators
(3) Discuss the use of effective and innovative teaching techniques, such as on-farm research, listening sessions, use of local knowledge, participatory education, farmer field days, and school-based farms
(4) Discuss isolation, conflict and variable administrative support
(5) Identify means for surmounting the challenge of teaching the concept of integrated systems
(6) Identify methods for discussing politics, scale of farming (farm structure), and ethics

This list of professional development issues suggests activities that address affective dimensions and professional artistry of agricultural educators, as well as information needs.

ADDRESSING NEEDS THROUGH ELECTRONIC CONFERENCING

In 1994, CSARE assembled an Education Task Force to address issues raised in the survey. The Task Force subsequently founded an Internet-based electronic conference called the Sustainable Agriculture Educators' Share List, or *SAEd-Share-L*, in February 1995. SAEd-Share-L is an open, unmoderated e-mail discussion list facilitated by a team that includes (1) a graduate student list manager (co-author Grudens-Schuck) in a land grant-based department of education, (2) land grant-based faculty from two universities, and (3) the director of CSARE.

At present, approximately 240 individuals from the U.S., Canada, Latin America, Britain, New Zealand, the Netherlands, and Australia subscribe to SAEd-Share-L. Subscribers include college faculty from social, biological and physical sciences; vocational agriculture teachers; farmers; graduate and undergraduate students; college administrators; cooperative extension field staff and administrators; staff of environmental organizations; and staff of sustainable farming organizations. To reach additional educators hard-copy summaries of list activity are published in the CSARE newsletter.

EVALUATION: PHASE ONE

This paper presents results from two phases of an evaluation related to the discussion list. A preliminary evaluation, conducted after the first three months, summarizes list activity according to types of topics raised, quantity of posts in topic areas, participation by gender, participation by institutional affiliation or employment, and geographic region (Grudens-Schuck, 1995). When the list came on-line, many subscribers were solicited from a larger, more general sustainable agriculture e-mail list called SANET-mg (Auburn & MacLean, 1993). SAEd-Share-L offers a narrower focus on educational processes and techniques, mainly for adults, in the broad arena of sustainable agriculture.

At the three-month mark, 41% of participants were associated with colleges or universities as either faculty or staff. Cooperative extension staff constituted 14% of subscribers. Posts during this period included independent queries and statements regarding educational processes (22%), discussion among participants about a wide range of relevant topics (60%), and short clarification queries (20%). The remainder of posts were categorized as 'announcements', 'administrative' and 'bibliographies'.

The list manager sometimes introduced topics, and urged individuals to post relevant material. However, direct facilitation did not result in significantly more activity than issues raised independently by subscribers (Grudens-Schuck, 1995). At the time of this first phase of the evaluation, SAEd-Share-L had not fulfilled its stated goal of sharing actual curricula and syllabi. Among others, discussion topics included: the relative merits of using the term 'sustainable' in adult educational settings; environmental ethics versus business and economic motivations for adopting sustainable agricultural practices; and design of K-8 educational materials.

EVALUATION: PHASE TWO

A second evaluation complements the first, by providing qualitative data that offer a means for understanding the diversity of personal experiences with SAEd-Share-L. This phase of the evaluation uses a participatory evaluation framework (Guba & Lincoln, 1989). A participatory framework for evaluation values the perspective of the 'user' in setting the goals of the evaluation, as well as participating in data collection, interpretation and reporting. List subscribers and SAEd-Share-L advisory team had also voiced an interest in discussing new activities and the 'future' of the list. The second phase of the evaluation was therefore crafted to generate a process for democratic discussion of the goals, format and continuance of the list. This second phase of the evaluation, with the addition of a 'futuring' activity, is an extension of ongoing list conversations about management of the list. The second phase of the evaluation is being conducted over approximately six months, which presents a favorable time frame for successful participatory evaluation (Christman & Simon, 1993).

To accomplish this evaluation design, evaluation/futuring team members were solicited from among list subscribers. These 'team members' comprise the remainder of the authors list in addition to the SAEd-Share-L list manager. The team is presently conducting qualitative, open-ended phone interviews with other subscribers purposefully chosen to vary by geographic region, institutional workplace, gender, and level of participation on the list. Team members are also conducting interviews of the list manager and advisory board to 'unhide' the needs and concerns of those who control the list most directly, making them available for inspection by subscribers. From the qualitative survey, evaluation/futuring team members will design a written, e-mail survey that reflects specific concerns of list participants, directors, and the evaluation/futuring team.

This evaluation/futuring project proposes to surface and address negative aspects of the list, as well as unrealized potentials, before subscribers 'vote via the unsub command'. Of particular concern to the list manager are the perceived low-level posting by subscribers, and the small number of posts of syllabi -- a core goal of founders of the list. However, the evaluation is not 'goal oriented'; the participatory framework of the evaluation questions the validity of goals for the list that are developed in relative isolation from direct activity of subscribers.

LITERATURE & DISCUSSION

The literature presents a variable view of potentials and effects of e-mail based discussion lists. Auburn (1996), and McComb (1993) suggest broad impacts on the character of relationships among participants, purported to foster lateral linkages and democratic associations. Lowry (1994), and Eastmond & Rohfield (1993) suggest that e-mail lists significantly improve quality and quantity of information. Networking and increased professional contacts are also cited as benefits of e-mail lists.

However, the potential for e-mail discussion lists to satisfy any number of desirable goals is often unrealized in practice. Moreover, complaints about lists are commonplace. For example, list activity may overwhelm subscribers who possess lower levels of technology, or for whom institutional subsidies are absent (Auburn, forthcoming; Grudens-Schuck, 1995). The *potential* for democratic associations may be facilitated by listserv technologies; however, many lists observe high to moderate posting by a very few participants, begging common definitions of 'democratic'. Important questions for Internet researchers may be: What drives discussion on a list? What is accomplished for both poster and observers when individuals take their conversation on-line?

Commonly, substantive discussions wax and wane on discussion lists, sometimes fueled by conflict. Subscribers often have strong feelings about the opinions expressed during such on-line conversations; others may watch intently, using the dialogue to clarify their own stance on issues and to gauge the safety and boundaries of the debate. This second strategy may enhance reflection of subscribers on their practice by provoking reflection on personal world views (Brookfield,1996).

CONCLUSION

At this point in time, it is unclear to what extent the SAEd-Share-L discussion list contributes to positive professional development. Professional development should include more than increased content knowledge; leadership, wisdom, and other mid-to-later stage measures of adult development should parallel cognitive aspects of professional development.

Results of the second phase of the evaluation will be available at the conference presentation session.

REFERENCES CITED

Auburn, Jill Shore. (in press). "Sustainable Agriculture on the Internet: Practical Uses." *HortTechnology: Special Issue on the Internet*.

Auburn, J.S. & MacLean, J.T. (1993). "Development of an Information Network for Sustainable Agriculture." *J. of Agric. & Food Info.* 1(3): 25-40.

Brookfield, Stephen D. (1995). *Becoming a Critically Reflective Teacher.* San Francisco: Jossey-Bass.

Christman, Jolley & Simon, Elaine. (1993). "Communicating Evaluation Findings as a Process: The Case for Delayed Gratification." In D.M. Fetterman (Ed.),*Speaking the Language of Power: Communication, Collaboration and Advocacy (Translating Ethnography into Action)* (Pp. 76-92). Washington, D.C.: The Falmer Press.

Eastmond, D. V. & Rohfeld, R.W. (1993). "A Report of Syracuse University's Computer-Facilitated Learning Program in Adult Education." *Interpersonal Computing and Technology Journal.* 1 (3).

Grudens-Schuck, Nancy E. (1995). "Sustainable Agriculture Education Electronic Conference: SAEd-Share-L: Report of First Quarter Activity". Unpublished paper.

Guba, E. G. & Lincoln Y.S. . (1989). *Fourth Generation Evaluation.* Newbury Park, CA: Sage.

Kloppenburg Jr., Jack. (1991). "Social Theory and the De/Reconstruction of Agricultural Science: Local Knowledge for an Alternative Agriculture." *Rural Sociology.* 56 (4) (Pp. 519-548).

Lowry, May. (1994). "Electronic Discussion Groups: Using E-Mail as an Instructional Strategy." *TechTrends.* 39 (2).

McComb, Mary. (1993). "Augmenting a Group Discussion Course with Computer-Mediated Communication in a Small College Setting." *Interpersonal Computing and Technology Journal.* 1 (3).

AUTHORS

Nancy Grudens-Schuck, Ph.D. Candidate, Department of Education, Kennedy Hall, Cornell University, Ithaca, NY 14853

Steven G. Hall, Ph.D. Candidate, Department of Agricultural and Biological Engineering, 419 Riley-Robb Hall, Cornell University, Ithaca, NY 14853

Molly D. Anderson, Ph.D., Director, Degree Program in Agriculture, Food and Environment, School of Nutrition Science and Policy, Tufts University, Medford, MA 02155-7028

Jill Shore Auburn, Ph.D., Associate Director, Sustainable Agriculture Research and Education Program, University of California, Davis, CA

Kim Leval Staritzky, M.S., Graduate Student, Department of Education, Kennedy Hall, Cornell University, Ithaca, NY 14853

ACKNOWLEDGEMENTS

The authors would like to acknowledge the contributions of SAEd-Share-L subscribers, who literally 'make' the list. The authors would also like to thank the SAEd-Share-L advisory board: Elizabeth A. Bird, J. David Deshler, and Charles Francis. Also, Joshua Slotnick, who co-founded the list, and James King, who advises and supports.

The Consortium for Sustainable Agriculture Research and Education (CSARE) may be contacted c/o Center for Integrated Agricultural Systems, University of Wisconsin, 1450 Linden Drive, Room 146, Madison, WI 53706. E-mail: bjdidric@facstaff.wisc.edu.

Presented at the Eastern Adult, Continuing and Distance Education Research Conference, Penn State University, University Park, PA, October 24-26, 1996.

"IN A COMPANY TOWN, WHEN YOU NEED HELP, WHERE DO YOU TURN?": THE EFFECTS OF IDEOLOGICAL COLONIZATION ON DEMOCRATIC LIFE IN AN INDUSTRY-POLLUTED COMMUNITY IN APPALACHIA[1]

Robert J. Hill

ABSTRACT

The social, economic, political, and environmental history of an industrially-polluted town was investigated, revealing 100 years of education embedded in a master narrative of ideological colonization and power asymmetries shaped by the industry. "Learning to comply" with the dominant discourse resulted in community consent, dependency, and--with the struggle over who would control the meaning of contamination--radical boosterism of the hegemonic discourse. A recently emerged grassroots group chose to control the meaning by appropriating official knowledge, not by constructing local knowledge, as is commonly reported for emergent groups. It is insufficient to say that mainstream knowledge always transports specified (dominant) politics and power arrangements. Rather, these are contingent upon the social and ideological relations in which the official knowledge is inscribed.

INTRODUCTION

The Borough of Palmerton, PA, is a community that began as the greatest single planned industrial site in the world, in 1898, by the New Jersey Zinc Company.[2] From 1898 to the closing of zinc smelters in 1980, the industry annually released 47 tons of cadmium, 95 tons of lead and 3,575 tons of zinc into the air, resulting in a technical environmental disaster. Much of the environment has been impacted, including the surrounding mountain, livestock, gardens, lawns, fishes, and, residents of the town.

In 1982, the US Environmental Protection Agency (EPA) listed the locale as a Superfund site. For six years, Superfund designation remained little known and uncontested, however, in 1989 several citizens learned about hazardous material in the community. People quickly became polarized between two opposing positions. There were those citizens who were averse to the designation--the industry, local government, economic interests, and a citizen's group (the Pro-Palmerton coalition). Those whom endorsed federal listing formed the Palmerton Citizens for a Clean Environment (PCCE). The opposition claimed the federal action was an unwarranted invasion of the town. An "environmental civil war" (Fried, 1994) began in Palmerton over who would control the meaning of the blighted landscape and health hazards. Knowledge at the site was thus multiply constructed.

PURPOSE OF THE STUDY

The contest for cultural authority, engaged between an industry alliance and an emergent grassroots group was investigated to determine how multiply-constructed environmental knowledge shaped democratic public life. An historical analysis was undertaken to determine the situatedness of the group, and to elucidate the community's "master narrative." The research questioned whether economic interests alone were the cause of civil strife as suggested by government and the media.

---

[1] This paper was first presented at the 37th Annual Adult Education Research Conference, University of South Florida, Tampa, Florida, May 16 - 19, 1996. It originally appeared in the *Proceedings* (Compiled by H. Reno and M. Witte), page 164, of the Conference. It is reproduced here with permission.

[2] In this study I use the term "zinc industry" in a non-discriminating manner. It is intended to imply functional behavior, not legal ownership. This study does not imply or otherwise state legal wrong doing by any party.

THEORETICAL FRAMEWORK

A quantitative, ethnographic study was undertaken, using multiple theoretical frameworks: critical pedagogy; emancipatory constructivism; and the environmental justice movement. The "colonization" of people's lifeworld--the intrusion of economic and political systems into the terrain where they come together for definition--was basic to the analysis. Colonization has been found to occlude spaces for democracy within civil society (Briton & Plumb, 1993). The research is premised on the belief that fugitive knowledge, i.e., knowledge outside the control of privileged specialists, like emancipatory knowledge, is "socially constituted, historically embedded, and valuationally based" (Hendrick, 1983).

No single theoretical stand describes citizen responses to environmental contamination; various scenarios have been identified: (a) grassroots groups are marginalized by government/industry alliance that obstructs or delegitimizes popular knowledge; (b) citizen-supported official knowledge is rejected by decision makers who selectively chose sets of data from the scientific canon that support power asymmetries in favor of the elite; (c) protest, (re)negotiation of power, resistance, rebellion, and collective actions; (d) quiescence and despair; and (e) community-based research. The commonality for all scenarios is distrust and antagonism between emancipatory groups and the government.

RESEARCH DESIGN

Qualitative ethnographic and historical/comparative studies were conducted. Informal group discussion, open-ended interviews, on-site observations, news articles, magazines, government documents, public records, oral narratives, meeting minutes, community ephemera, and recorded video tapes served as thick data texts. The ethnographic research component was operationalized through a step-wise immersion into the community in 14 visits, consisting of 80 informant-contact hours to garner comments about the current and past environmental, social and economic history. Recordings and fieldnotes were transcribed, coded, analyzed, and the findings discussed with the informants. Triangulation (Denzin, 1978) of data sources: several evaluators; multiple theories; and diverse perspectives ensured trustworthiness.

FINDINGS: IDEOLOGICAL COLONIZATION AND LEARNING TO COMPLY

Analysis of data revealed that the goals of the industry were to capitalize on human labor; company behaviors/actions were oriented toward maximization of profit through a systematic, strategic, and methodical plan to control community discourse. This meant producing, maintaining and managing the production of knowledge. Ideological colonization resulted in quiescence, dependency and, at times, boosterism, while simultaneously destroying the ecosystem and impacting the health of the community. The industry master narrative was one of control, regulating social arrangements and civil order to meet industry needs, that led to paternalism and dependency. It taught that toil, the engine of steady progress, fulfills God's grand scheme (Woodward, 1920). Throughout the decades, the vessels that conveyed the master narrative changed, but not the message. The various social issues of the diverse periods reflected a reworking of the dominant discourse. Community members learned that only by a faithful relationship to authority could the divine scheme be realized.

Between 1898 until 1911 more than 400 social settlements developed across America, based on a complex agenda of combating industrial disease, promoting neighborhoods, improving housing for the poor, establishing kindergartens, fighting for trade unions, organizing for workers' rights and fostering adult education. In 1907, the zinc industry joined the settlement movement, hired social workers and opened Neighborhood House, a welfare initiative--and a tool of the colonizers--headed by several settlement workers. It was "regarded as an investment, not a philanthropy" by the company, and one that "had proved its value, otherwise, no such sum would have been sunk in it" (*The North American*, 1911).

Labor strife in the early 1900s directed the actions of the fledgling zinc company to appropriated the ideals of the settlement movement for its own ends. A government report, referencing the zinc industry, remarks that "welfare work and other means of mutual interest" were engineered to produce "more cordial relations between employers and employees" (*Annual Report*, 1915). The company affirmed that social work was aimed at increasing "profit by the greater efficiency of...employees." State and industry blatantly describe the tools of welfare work as apparatuses of domination, producing a pedagogy of domestication. It was noted that assistance would "never go unappreciated. Always there will be better service and greater efficiency." "Fine modern homes" that the company made available for a profitable fee "will invest [an employee] with a sense of ownership and mutual interest that can not be countered by ordinary labor disturbances or usual disquietude." It was noted that workers would "repay such manifestations with zealous devotion to the interests employing it." Through the mechanisms of welfare work individuals learned to comply; to accept the colonization of their lifeworld at the hands of masters who looked after their welfare.

The single most important value, from the time of founding of the industrial town in 1898 to today, is work. The lines are typical, "For all who in sheer honesty do come [to Palmerton]...through WORK serve God" (Colwell, 1937). Work, the basis for the industry's master narrative, is the pathway to virtually all of the values of modernity. Work, the narrative contends, makes a person honest, trustworthy, loyal, free, reasonable, prosperous and successful. It is the father to discovery, it generates competition, and it gives to the laborer happiness. Most importantly, work is offered by God as a means of achieving His grand plan of steady progress toward prosperity. Simply put, God is the "Master of all Good Workmen" (An Old Fogy, 1921). To this day, the Borough motto reflects this ethic, "Palmerton People Prosper."

LEARNING AND THE MASTER NARRATIVE

Initially, educational endeavors were provided to children and adults through the social services of the company-run Neighborhood House. With rudimentary youth education "there certainly could be increases of efficiency...and still more benefits [to the company] if [laborers] could have some vocational training." In the end, education not only advantaged the employer, but "[the company] would certainly render the state a splendid service." Adult education provided by the company to "foreign labor"--seen by them as "raw material"--was for the expressed purpose of transforming "ignorant, incapable, constantly changing laborers" into a position of stability and to "fashion [immigrant help] for the particular uses to which it [was] to be put." Americanization classes, as well as night school, day school, and correspondence classes were seen as valuable company investments. It was acknowledged that kindergarten classes were instituted so to reach adults, through their children, for the purpose imposing the master narrative. The daily life of employees was investigated by the company's sociology department. Although companies could not "inquire into and interfere with the private life of...employees...industry [could] and [would] do so" (Chappell, 1929).

THE POLITICS OF THE MASTER NARRATIVE

The dominant discourse placed faith in unbridled capitalism. The movements of unionism and socialistic ideals after 1916 resulted in a company discourse that iterated, "It does not matter under what economic, social, or political conditions you perform your labor, it always will be a matter of exchange of your own labor for the labor of others in some form or another." Capitalism was constructed as the ideal, while unionism painted as a condition that submerged ability, capacity, ambition, and individuality.

When the American society wrestled with Darwinism, after the Scopes Trials in 1925, evolution became the trope for the master narrative. The company proclaimed, "They enact laws in Tennessee...they bar the theory of evolution from the public schools" but "corporate business is still evolving" (Trimble, 1928). We come to learn, however, that the evolutionary end-stage was no different than the pre-evolutionary discourse: social arrangements could be controlled by humanizing the industrial machine to produce "better men, healthier, happier, more contented in their homes, and more enthusiastic in their jobs...who give the highest character of service, the best they have in them...and thereby earn more profit, both for themselves and for those whom they serve."

THE GENDER OF THE MASTER NARRATIVE

The dominant discourse was masculinized. Governor Pinchot of Pennsylvania, in the late 1920s and early 1930s, asked Charlottte Carr to initiate a "women's bureau." During this period, she was appointed Secretary of Labor, the same bureau that two decades earlier had praised the work of Palmerton's Neighborhood House. Noted for unlady-like qualities such as "cursing, smoking, and drinking," she asked threatening questions to industry, such as, "Why should working people weave rugs?" referring to an educational endeavor of settlement work. Texts from this period illustrate a shift in the zinc industry discourse to anti-feminist rhetoric. Women were constructed as the cause of industrial problems. Workers with "bad attitudes" were nothing more than "Rolling Pin Grouches." Women were reproached for industry accidents: "it is strange that since they have been blamed for the original downfall of man that they should not have been suspected of their rightful responsibility in connection with accidents. If asked to designate the most potential accident hazard of an industrial plant the answer might well be the shiftless housewife" (Chappell, 1929). Male absenteeism, tardiness, rowdiness, and "asocial" behaviors, identified by Scott (1985) as tools of resistance used by the colonized, were averted by regulating the behavior of women.

THE COLOR OF THE MASTER NARRATIVE

The dominant discourse was fair skinned. Very few instances of counterhegemony or resistance to the "totalizing" of life by the company's master narrative could be found. However, in 1915, the director of the Neighborhood House wrote, "almost without exception, we find the immigrant bearing the brunt of the hardest labor. His lack of training, his inexperience regarding conditions of living, his limitations of language and his usually enduring physique relegate him to the rank of the minimum wage earner....In our industries [he] is handicapped not only by these limitations, but oftentimes is up against the race prejudice of a boss who underrates his value to labor" (*Neighborhood House report,* 1907). Racial myths directed employment practices: certain ethnic groups were believed to have broad backs, better built for heavy labor, while others could endure the heat of furnaces and were matched with jobs that produced sweaty brows. The belief that immigrants had *enduring* physical characteristics translated into few advancements in the company.

PALMERTON TODAY: RECYCLING THE MASTER NARRATIVE

To have been colonized is a fate with lasting, results. This article opened with the positioning of a civil war of values in Palmerton. The industry master narrative of control, regulating social arrangements and civil order to meet industry needs, that led in the past to paternalism and dependency, is still recycled. During the course of this study, Borough Council was faced with the decision to arrange for restoration of contaminated sections of the town park. The options included, requesting federal moneys for the remediation, or going to the industry for assistance.

They chose to call upon industry for help. Social arrangements are still regulated by a discourse that inhibits inpatient screening for industrial diseases at the local hospital, despite evidence there are community health problems. The local school district has no answers when questioned whether they have performed comparative evaluations of child development and learning to determine if heavy metal contamination has impacted the youth of the community.

The members of the town who supported federal Superfund designation asked the question, "In a company town, when you need help, where do you turn?" For them, the answer was in the master narrative: the reproduction of patriarchal relations. EPA, with its positivistic, techno-rational, knowledge was promoted by the grassroots folks. Official knowledge became their primary source of struggle, hope and possibility. In the context of dependency, and ideological colonization, they did not produce a counterhegemonic discourse or alternative ways of knowing, as do most groups. Instead, they took up mainstream knowledge, often associated with hegemonic powers that oppress communities. Codified knowledge was the sole basis for learning, and precluded the desire for fugitive knowledge.

SUMMARY

In the absence of fugitive knowledge, the grassroots group gathered, shared, stored, recombined, disseminated, and used official government knowledge as "competitive knowledge," i.e., knowledge in competition with the knowledge constructed by the polluting industry. Aligning with makers of official knowledge, allowed members to break feelings of dependency on the company, even if it was transferring dependency and powerlessness from one authority figure to another. They believed that the government had a social obligation to act on their behalf, in a way that the industry never had. Bolstered by official knowledge, their fate at the hands of industry was less threatening. Codified knowledge was the terrain of possibility, not marginalization. In the face of community silence about environmental problems, and in contest with industry boosters, government help was all they felt they had. This study shows that power politics of the elite group are not necessarily immutably bound to official knowledge. It is insufficient to say that mainstream knowledge inherently transports specified politics and power arrangements. In this case, official knowledge opened up a space for the cultivation of a will to resist a century of ideological colonization, and was a promise of possibility. The study showed that power symmetries are contingent on the social and ideological relations in which official knowledge is inscribed. It was through official knowledge that some adults learned to transgress--to develop an "oppositional consciousness" (Harding, 1986). The grassroots community inhabited a cultural space built on democratic possibilities, broadening the social discourse.

REFERENCES

An Old Fogy. (1921). Love of our work essential to our success. *Zinc, 6*(1), 3-4.

Annual Report of the Secretary of Internal Affairs. (1915). Welfare work and co-operation as a means to create more cordial relations (pp. 40-64). Model villages and homes as uplift means (pp. 64-90). Harrisburg, Pennsylvania: W. S. Ray, State Printer.

Briton, D. & Plumb, D. (1993). The commodification of Adult education. In D. Flannery (Ed.), *Proceedings of the 34th Annual Adult Education Research Conference* (May 21-23, 1993). University Park, PA: Pennsylvania State University, pp. 31-36.

Chappell, P. W. (1929). Carelessness. *Zinc, 14*(2), 51-56.

Colwell, S. B. (1937). Poem. *Silver jubilee celebrating the 25th anniversary of the incorporation: Borough of Palmerton.* Palmerton, PA: The Palmerton Printing Co.

Denzin, N. K. (1978). *The research act: A theoretical introduction to sociological methods.* New York: McGraw-Hill.

Fried, J. J. (1994). Palmerton being torn by an environmental civil war. *The Patriot-News*, Harrisburg, Pa, Wednesday, August 17, p. B12.

Harding, S. (1986). The science question in feminism. Ithaca, NY: Cornell University Press.

Hendrick, C. (1983). A middle-way metatheory. *Contemporary Psychology, 28*, 504-507.

Neighborhood House report (1907-1909). Compiled by Florence Hughes.

North American. (1911). The town beautiful. Philadelphia, Sunday, July 2.

Scott, J. C. (1985). *Weapons of the weak: Everyday forms of peasant resistance*, New Haven; Yale University Press.

Trimble, C. A. (1928). Corporate business still evolving. *Zinc, 13*(5), 131-133.

Woodward, C. (1920). Four rules for success. *Zinc, 5*(12), 395-396.

Robert J. Hill
Pennsylvania State University-Capital Campus
PO Box 11951
Harrisburg, PA 17108-1951

Presented at the Eastern Adult, Continuing and Distance Education Research Conference, Penn State University, University Park, PA, October 24-26, 1996.

CREATING A LEARNING ORGANIZATION, CREATING A CONTROLLING ORGANIZATION: A CASE STUDY OF TOTAL QUALITY MANAGEMENT IN AN INDUSTRIAL SETTING

Sharon L. Howell, Judith A. Preston, Fred M. Schied, Vicki K. Carter
Penn State University

This study investigated the impact of a TQM program on hourly workers in an industrial setting. The paper argued that the basic skills program and the TQM process were implemented in the guise of education and training, but were driven by a corporate policy to reduce labor costs. The paper examined the way in which adult education was complicit in defining and controlling workplace knowledge. Data were collected through interviews with management personnel, education and training providers, and hourly workers.

INTRODUCTION

I've worked here 26 years. I have nine more years to go and I'll never get another raise. See, I'm classified as a dummy (hourly worker). The TV monitors are now in place. Is anyone going to let us know what all the colors and numbers mean, or is this all part of a new test to see how fast we can figure them out by ourselves (hourly worker)? I've had women experience nervous breakdowns due to the paper and pencil tests given here and being demoted from their jobs (literacy teacher).

These statements were made after a plastic molding company introduced a Total Quality Management (TQM) process, including an extensive basic education program, into the workplace. This paper argues that the basic skills program and the TQM process were implemented in the guise of education and training but were, in effect, driven by a corporate policy to reduce labor costs. Further, the paper examines the way in which adult education was complicit in defining and controlling workplace knowledge as well as creating worker resentment and demoralization.

The research used a case study design informed by a critical perspective on the social and ideological basis of work and learning. Data were collected through interviews with management personnel and education and training providers. Interviews with hourly workers were conducted on the shop floor. One member of the research team participated in the TQM training process. In addition, the research team had access to video training materials and internal strategic planning documents. For the purposes of this paper, the analysis focuses on experiences of two hourly workers and the company's Education and Training Manager.

OVERVIEW OF PLASTIFORM

Plastiform, the pseudonym for a regional manufacturing plant of a multinational corporation, employed 220 full-time hourly workers divided among three week-day and two week-end shifts. The 20 person management team included the plant manager, six managers with functional responsibilities and shift supervisors with oversight of daily operations. The company drew its workers from the surrounding, overwhelmingly white communities, and traditionally hired an approximately equal number of males and females. Until recently a high school diploma or GED was not required. Approximately one-quarter of the hourly workforce never completed high school.

Plastiform, according to its hourly workers, used to be a good place to work. Originally a family- owned business, Plastiform had a protective and paternalistic attitude towards its employees. Workers tended to stay with the company for a long time and it was not unusual to see family members work side by side. For example, one woman and her three sons worked at Plastiform for a familial total of 73 years. Although not unionized, wages at Plastiform tended to benefit from the area's large unionized workforce. In fact, the company was considered a good place of employment for those who could not get jobs in the unionized steel and machine works. Structurally the organization reflected a union environment paying relatively high wages, giving bonuses and making promotions based on seniority. While there is some evidence to suggest that hourly employees romanticized the "good old days," and that the familial and paternalistic policies of the company were not unproblematic, hourly workers unanimously agreed that their working conditions had deteriorated drastically over the last few years. The reasons for this dramatic change, we argue, was the introduction of a new management process, TQM, and its subsequent repercussions.

CORPORATE DISCOURSE ON THE "NEW WORKER"

During the 1980's the demand for a new education and training agenda reached its crescendo. The corporate blueprint called for a "package" containing responsible adaptable workers with appropriate communication, thinking and problem-solving skills. Focusing on quality, team approaches to work organization depended on enterprising workers capable of lifelong learning. (e.g., Handy, 1990; Marsick & Watkins, 1993; Redding & Catalanello, 1994; Senge, 1990). However, as Douglas Noble has argued, such rhetoric, though couched in language of worker participation and knowledge, actually masked a new, some have called it a postmodern, way to control workers. Masked in the language of skills, the new worker is instead expected to develop new attitudes on the job (Noble, 1991). Lund and Hansen, in a study of new worker requirements, stated that the most important skill required by the new worker was the ability and willingness to take individual responsibility for part of the production process. Thus, responsible behavior became the most important skill. Indeed, the language itself is framed within psychological notions of control. Workers needed to develop mature and sophisticated skills of cooperation and part with rules constraining the range of work an individual can do (Lund & Hansen, 1988).

The corporate discourse of TQM, purported to be a data-driven, complete, neutral management philosophy, encompassed reduction in variation and the ability to measure quality thus producing customer satisfaction. This approach, in theory inevitably leading to improved productivity, tapped the job knowledge of those closest to the actual processes being examined in order to remove systemic defects. Workers empowered and involved in the decision making process would view themselves as valued contributors, thus continually improving their productivity. Moreover, to produce better solutions, the knowledge of workers is harnessed within the foundational concept of teamwork and structured problem-solving. Therefore, the corporate discourse suggested that every workplace contained undiscovered gems of ideas waiting to be developed. The adversarial relationship between labor and management could now be viewed as counterproductive and outmoded (e.g., Katzenbach & Smith, 1993; Scholtes, 1988; Senge, Kleiner, Roberts, Ross, & Smith, 1994; Walton, 1986).

At Plastiform, corporate headquarters adopted a new business plan based on TQM in 1992. Plastiform's business plan had three major components: 1) upgrade the basic skills of the workforce, 2) qualify for International Organization of Standardization (ISO9000) certification, and 3) implement a computer integrated manufacturing system. In announcing the new plan to the workforce, the CEO stated in video tape format that in an increasingly competitive global marketplace, quality and customer satisfaction must become the driving force. The CEO remarked: "We will do this through total quality. Plastiform will have a true culture of continuous improvement." By creating a team-based, knowledgeable and empowered workforce and emphasizing customer satisfaction, Plastiform promoted the idea that TQM would ensure continued profitability. However, the researchers obtained a videotape of the CEO's address to upper-level management at corporate headquarters which suggested a different rationale for introducing TQM. The primary reason for the introduction of TQM, the CEO stated, was to *maximize shareholder value*. In actuality, the motivation was to increase profit in an already profitable corporation. The primary means to increase profitability and therefore maximize shareholder value was to cut labor costs. These initiatives drove the agenda of the local manufacturing facility that needed to reduce its own cost of labor in order to give back to corporate headquarters an increased percentage of revenue. The role that education played in this process and the impact of this policy on the hourly workers at Plastiform is discussed below.

IMPLEMENTING TQM: THE STORY OF THREE WORKERS

Jim and Tracy were both classified as press operators. Jim dropped out of high school for an entry level job on the shop floor and 26 years later still worked at the same set of presses. He learned the press operation and could diagnose problems by listening to the sounds of the presses. He became an expert at knowing which products produced which kinds of defects. Through experience, he knew which technicians to call for different types of problems and could very often fix problems by himself. Jim could maintain a set of presses, keep production going, and through cooperation and good humor, earned the respect of his fellow workers. After 26 years at Plastiform, he earned a competitive wage and owned his own home. Jim felt he had a job for life and expected to retire from Plastiform.

Tracy came to work at Plastiform between marriages. The job allowed her to support her two daughters. She was a high school graduate with lots of ability and limited options. With 11 years of experience, she worked all three shifts. This disrupted her family life. She recalled working second shift and her daughter arriving in the cafeteria to show off her prom dress. At the time of the interview, Tracy had remarried, was a grandmother, and her income supported leisure time activities rather than family.

Ramana, an experienced adult educator, conducted basic education classes at Plastiform through a state funded program administered by the local literacy council. Ramana was a reading specialist with twenty years of experience. She provided remedial classes in reading and math for hourly workers. While the state grant paid Ramana's salary, the company provided space, materials and paid release time for participation. Hourly workers who had been out the classroom for years worked up the courage to test the learning process again. Impressed with Ramana's capabilities, the company hired her as their new Education and Training Manager, a position of increasing importance after the introduction of TQM.

With the corporate decision to implement TQM processes, plant management came under increasing pressures to not only adopt continuous quality procedures, but also to cut labor costs, the hidden agenda behind the TQM plan. Using the language of TQM, management announced a work reorganization. Instead of operators responsible for single machine, work teams were organized to monitor a multiplicity of machines and procedures. Hourly workers, management announced, would now be empowered to make decisions on the shop floor. Meetings explaining TQM were held for all Plastiform workers. A four-day seminar on the continuous quality improvement process was held at a local hotel for all workers. The objective, according to the plant manager, was to totally change the culture of Plastiform, the company would become a continuous quality organization focused on customer satisfaction. Informal and incidental learning on the shop floor was replaced by formal training and certification programs. In accordance with TQM's emphasis on training and measurement, (referred to by management as "if it moves, train it; if it doesn't, calibrate it"), hourly workers were asked to train co-workers on various tasks.

A first step toward continuous quality improvement was to determine the educational level of the workforce, given that a knowledgeable workforce was key to the success of TQM implementation. Plastiform had never evaluated employees to assess job performance or to decide on pay increases. Only the most grievous infractions were documented in the personnel file. Company needs now met education expertise in the form of a standard educational testing instrument. The company announced a plan to divide the job category of press operator into two separate jobs. They divided the tasks into a process monitor with clerical responsibilities and a product packer who boxed, palletized and performed general housekeeping duties. Hourly workers were now split into two distinct groups, one group supposedly having a significantly higher level of skills than the other. In her first official act as Education and Training Manager, Ramana administered, with some reluctance, the Test of Adult Basic Education (TABE) Problem Solving Examination to all hourly workers. The result of the test was an artificial division of labor based on the assumption that some workers only "do" and others "think."

By sorting work activities into two new job titles, Plastiform had devised a way to significantly reduce labor costs. Documents obtained by the researchers revealed that management intended to reduce wages of packers by as much as one-third. However, state labor laws prevented this, so packers' wages were frozen instead. The company instituted a policy of hiring only high school graduates who passed the TABE test. New hires became process monitors while new packers were provided by temporary agencies. Interestingly, the company looked to reduce the packers' hourly wages by one-third, but committed 2.5 million dollars to purchase a TQM training program.

Jim reacted to the testing procedure with bewilderment and anger. He did not pass the test and was classified as packer. Facing a decade of work until retirement, he would never get another raise. Years of expertise, product knowledge and company loyalty were repaid with humiliation and menial work. A relationship had been erased and trust broken. Jim no longer had a desire to work hard for the ultimate success of Plastiform and said, "This place used to care about us, but now I wish I had never come to work here." Jim participated in TQM training, but felt there was no process to improve. He made a box, he filled a box, he sealed the box. The company had labeled him a dummy and given him activities where no process improvement was possible. For Jim there were no quality issues, nor were there any benefits stemming from TQM for himself.

Tracy passed the test but was also bewildered and angry. She said Plastiform's policies were unjust and unfair to all the workers in the plant. Tracy also participated in TQM training. However, Tracy did not do it not out of loyalty or dedication to the company. She was willing to work for the company and be trained in TQM because she saw the health of Plastiform as important to her way of life. She was middle-aged and saw no advantage to going back to school because there was no place for her in the organization beyond her current position. It was important to her that the company survive. Tracy understood that she must play her role in order for it to do so. She participated in training and learned to be a trainer, but said, "Who wouldn't like the training - you get out of work for a day, get to talk to people, a free lunch and all the soda you can drink."

Interviews with other line workers revealed that while there was general agreement that training might be a good thing, almost all also agreed that learning on the shop floor continued in the same way as before -- by trial and error and informal processes. TQM was, as Tracy noted, the latest in long series of management techniques and training initiatives introduced at Plastiform.

TQM and the Management of Human Thought

In her analysis of the language of TQM, Bensimon (1995) noted that TQM's first postulate defined quality as customer satisfaction. However, quality was also a reflection of the interests, values, and beliefs of those with power (stockholders, customers, etc.). TQM did not always benefit the larger community. Secondly, quality consisted of the reduction of variation and elimination of defect. These concepts required shared beliefs about knowledge and fixed meanings. When applied to humans, the workforce was "manufactured" to meet the specifications of the customers and management. Thirdly, quality was measurable. This implied that difference equaled inferiority and reinforced the concept of social similarity. TQM was the total management of human thought and identity. It created a hostile environment for dissent. These techniques normalized and totalized in the name of global competitiveness. Humans were identified in terms of external and internal customers and the spirit of the process was to stamp out variability. The flow of input and output became a terminal end in itself. The idea of TQM was not new, the goal was to get more from less with reduced human involvement because humans were expensive (Sewell & Wilkenson, 1992; Dennis, 1995).

As this research has shown, the new worker must show commitment, motivation and obedience to the organization while expecting little in return beyond the opportunity to have a job. Included in this is a willingness to accept increased responsibility for decision making, customer satisfaction, increased communication skills all while being a team player. Their so-called skills, Noble (1991) argued, ensured worker adaptability to corporate decisions concerning products, markets, production process, and technologies in a global economy. Underlying these new attitudes was the ability to learn. Learning became the central function of an organization and its workers. With the short life cycle of products, a move away from mass to customized products, workers had to constantly engage in learning and become multiskilled. However, these new jobs required little technical skill (Lund & Hansen, 1986). Thus, as Noble (1991) noted, the ability to learn was a shallow substitute for real learning. It was adaptability, but not in the sense of intelligent wherewithal and cleverness; rather it was the kind of flexibility with no inherent direction of its own. Learning of this kind was the adjustment of people, viewed as one of several resources in the production process.

What were the outcomes of the education and training initiatives at Plastiform? From a critical postmodern perspective, when definitions of literacy and "management" programs were imposed on workers rather than constructed by them in dialectical action, education became a weapon for disempowering workers by devaluing their experience, ways of knowing, communication and construction of meaning. The focus on performance was designed to supply the system with players capable of fulfilling their roles in the jobs required by the company.

Training, both for TQM and literacy, became a sorting system to determine who succeeded and who did not; it was a product of hegemonic discourse and management technique.

Conclusion

Our study concluded that workers operated within the context of contradictory signifying systems. The rhetoric of learning and total quality management purported to create an empowered, flexible workforce based on a culture of trust and equity. In a TQM environment theory said the knowledge of all workers was equally valued in problem identification, diagnosis, and resolution. All perspectives were given equal voice. The use of an academic instrument to sort workers created an artificial caste system. Despite the knowledge accrued through years of experience, those who failed the test no longer had a voice. Those who passed the test became the keepers of the knowledge; those who failed the test because the keepers of the label gun.

The reality at Plastiform was that workers were subjected to internalized mechanisms of control and a false sense of agency. In buying into the corporate program, workers were objects of the tyranny of management theory and management's economic agenda. Adult educators were complicit in allowing the corporation to meet their goals using education and training as a facade. Literacy education and TQM became a weapon for disempowering workers, devaluing their experience and ways of knowing, and their construction of meaning. In this case, education became the arbiter of justice, legitimating the sorting of employees and providing validity for what was *done to them.*

References

Bensimon, E. M. (1995). Total quality management in the academy: A rebellious reading. Harvard Educational Review, 65(4), 593-611.

Dennis, D. (1995). Brave new reductionism: TQM as ethnocentrism [1240 lines]. Education Policy Analysis Archives [On-line], 3(9). Available World Wide Web URL: http://info.asu.edu/asu- cwis/eppa

Handy, C. (1990). The age of unreason. Boston: Harvard Business School Press.

Katzenbach, J. R., & Smith, D. K. (1993). The wisdom of teams: Creating the high- performance organization. New York: HarperBusiness.

Lund, R., & Hansen, J. (1986). Keeping America at work: Strategies for employing new technologies. New York: John Wiley.

Marsick, V., & Watkins, K. (1993). Sculpting the learning organization. San Francisco: Jossey- Bass.

Noble, D. D. (1991). High-tech skills: The latest corporate assault on workers. In S. London, E. Tarr, and J. Wilson (Eds.), The Re-education of the American Working Class (pp. 131-144). New York: Westport.

Redding, J. C. & Catalanello, R. F. (1994). Strategic readiness: The making of the learning organization. San Francisco: Jossey-Bass.

Scholtes, P. R. (1988). The team handbook: How to use teams to improve quality. Madison, WI: Joiner.

Senge, P. M. (1990). The fifth discipline: The art and science of the learning organization. New York: Doubleday.

Senge, P. M., Kleiner, A., Roberts, C., Ross, R. B., & Smith, B. J. (1994). The fifth discipline fieldbook: Strategies and tools for building a learning organization. New York: Currency Doubleday.

Sewell, G., & Wilkenson, B. (1992). Empowerment or emasculation? Shopfloor surveillance in a total quality organization. In P. Blyton & P. Turnbull (Eds.), Reassessing Human Resource Management (pp. 97-115). London: Sage.

Walton, M. (1986). The Deming management method. New York: Perigee Books.

Sharon L. Howell, Judith A. Preston, Fred M. Schied, Vicki K. Carter
Adult Education Program, Penn State University, 315 Keller Building, University Park, PA 16802

Presented at the Eastern Adult, Continuing and Distance Education Research Conference, Penn State University, University Park, PA, October 24-26, 1996.

EXPERIENCES OF A FEMINIST RESEARCHER: DISCOVERING THE CONNECTION BETWEEN PRIOR AND CURRENT EDUCATIONAL EXPERIENCES OF HOMELESS ADULTS

Carole B. Karinshak

ABSTRACT

This paper discusses the results of a study which examines the relationship between the prior and current educational experiences of homeless adults. The author will highlight her experiences as qualitative data is collected for the study.

INTRODUCTION

Very little is known about the influence that prior formal education and life experiences has on adult learners. The historical relationship of education and learning would be particularly useful to educators of homeless adults and other adult student populations. As a former homeless adult educator, the author conducted an informal survey to explore the influence of prior learning experiences on the present ones experienced by the homeless adults in her class. The various learning and education relationships of the students coupled with the author's interest to understand how homeless adults responded to interview questions related to education and learning provide the impetuses for this study.

The purpose of this paper is two-fold: (1) to present the results of a pilot study that explored the prior and current learning experiences of homeless adults, and (2) to examine the author's experience as a feminist researcher. The author observes that the life experiences of the homeless adults significantly influence their learning experiences in the classroom. She found that many of the homeless adults in her class encountered adverse formal and informal learning experiences as children. These life experiences affected the current learning attitudes and educational attainment of the homeless adults attending life skills education classes.

LEARNING THROUGH LIFE EXPERIENCE

Cyril Houle (1984) emphasizes that "experience has also been thought to be the best teacher in adulthood" (p-. 200). Eduard Lindeman (1989) states that "experience is the richest resource for adults' learning and believes that "education is life" (p. 126). Sharan Merriam and Carolyn Clark (1991) concur by saying that "it is commonly understood that learning is central to human behavior and that life itself presents never-ending opportunities for learning" (p. 179). However, John Dewey (1963) reminds us that

> the belief that all genuine education comes about through experience does not mean that all experiences are genuinely or equally educative. Experience and education cannot be directly equated to each other. For some experiences are mis-educative. Any experience is mis-educative that has the effect of arresting or distorting the growth of further experience. An experience may be such as to engender callousness; it may produce lack of sensitivity and of responsiveness. Then the possibilities of having richer experience in the future are restricted (pp. 25-26).

Sharan Merriam (1994) believes that "even when adults respond to a life event through informal learning, success may be limited by their life circumstances" (p. 80). George Spear and Donald Mocker (1994) point out that "it is obvious that the details of specific circumstances that provide the organization for self-directed learning are as varied as the learners and their respective settings" (p. 4). While studying the self-directedness of adults, the following inferences were drawn:

> 1. The impetus or triggering event for a learning project or episode proceeds for some change in the life circumstances. The change may be positive or negative, may happen to the individual or to someone who affects a person's life, or may be an event which simply occurs and is observed within the life space of the individual. Life space is defined as the physical, social, and psychological environment in which the individual lives and functions.
> 2. The change circumstance tends to provide a single or, at best, very few resources or opportunities for learning that are reasonable or attractive for the learner to pursue,
> 3. Learning sequences progress, not necessarily in linear fashion, but rather as the circumstances created during one episode become the circumstances for the next necessary and logical step in the process. (pp. 4-5).

It is obvious that the reason for learning in adulthood is as diverse as the life experiences themselves. Peter Jarvis (1987b) emphasizes that

> Learning is therefore, a process that stems from life itself and, as such, it is as open to sociological interpretation as it is psychological. Experience involves relationship between people and the socio-cultural milieu in which they live, so that learning is also related to that socio-cultural milieu (pp. 164-165).

Taking into consideration the observations of Jarvis, the impetus for learning is not only driven by the life experiences themselves, but also the socio-cultural influences imposed on the individual. However, the inclination of an individual to seek new learning experiences is driven primarily by work and home. Even then, these learning experiences must be sanctioned by the socio-cultural norms on the individual.

METHODOLOGY

Population

The study population consists of former homeless adult students, both male and female, that attended educational classes at the shelter. Two women and two men were interviewed. Their ages ranged from 25 to 46. Each of these individuals has acquired permanent housing and employment and are fully functioning individuals in the community. The participants were personally approached by the researcher with an invitation to participate in the study. Their willingness and availability determined their inclusion in the study.

Data Collection

This qualitative study collected the data by use of interviews directed by an interview guide to ensure conformity. The duration of the interview was approximately 1 - 1 1/2 hours. The interview was audio-taped. The anonymity of the participants maintained throughout the study and in any reports related to the study. The participants are assigned identifying numbers for data analysis purposes and fictitious names for reporting purposes. The researcher only knows the true identity of the participants.

Data Analysis

The data is analyzed through classification into categories through analytic induction. This is utilized to identify any emerging patterns in the perceptions of the participants. The data is rich with a diverse array of themes and categories. The educational experiences of the participants are examined from four primary perspectives: life experience, experiences of being homeless, their personal attitudes toward learning, and the their experiences with parents, siblings, and significant others with respect to education and learning.

The following assertions are based on the interviews analyzed. The educational experiences of the participants are scrutinized using the entire scope of the participants' experiences in formal educational settings. The educational settings themselves are not discussed, but the participants' perceptions of how their parents and siblings influenced their educational attainment, how pre-adult formal schooling is viewed, and the positive and negative formal educational experiences influences and impacted on their lives as adults. The data revealed that:

1. Each of the participants received little or no support, in the form of encouragement, help with their homework assignments, etc. from their mother or father as children. This lack of support transcended into adulthood. Two of the participants mentioned that the first time that they had support

of any sort in their lives was from the shelter staff and teachers at the homeless shelter.

2. Their parent(s) place little or no value on their education attainment as children. One participant dropped out of school at the age of 16. The other three completed high school and one completed one year of study at a community college. However, the impetus for one was that she was expecting a child and decided that she needed to complete her high school education in preparation to find a good job to support her son. The other participant completed high school because it was the "thing to do" during that stage of life.

3. As adults, the participants stated that they learned more from their life experiences than formal education. All participants mentioned that the information learned through life experience enhanced any formal educational experiences and commented that these life experiences were more useful in their lives than formal educational experiences. One participant stated that experiences through life was the best source of knowledge.

4. The participants preferred forms of self-education as opposed to formal educational experiences. One participant commented that this form of learning was non-threatening and no one, such as a teacher or fellow student would evaluate the learning that occurred in this fashion.

The data analysis substantiates the fact that life experience affects the perceived learning of these homeless adults. The data revealed that these adults learned many skills through their life experiences and was not cognizant of this fact.

EXPERIENCES AS A FEMINIST RESEARCHER

Shalamit Reinharz (1992) refers to feminist research methods as "methods used in research projects by people who identify themselves as feminists..." (p. 6). A feminist qualitative researcher is continually faced with the dilemma of finding not only her own voice, but also the voice of the study participants. Reinhartz (1992) asserts that "many feminists have written that 'finding one's voice' is a crucial process of their research and writing" (p. 16). Kathryn Anderson et.al. (1990) posit that "when women speak for themselves, they reveal hidden realities, new experiences and new perspectives emerge..." (p. 95). Being cognizant of my influence on this study as a feminist and identifying the multiple voices found in the data are central to my experience as a feminist researcher.

When I began this study, I had not yet identified myself as a feminist, much less a feminist researcher. I noticed that I acquired richer data from the female participants when I also interjected my own personal experiences from time to time as they responded to my questions. Initially, I felt awkward doing this because I perceived this interaction as 'leading' the participant and believed that my contributions could perhaps taint the data. I learned that interjecting personal experiences into the interview discussion affirmed the particular social relationship that the participant was discussing

The primary focus of the data collection is to ask questions that will encourage participants to openly and freely discuss their experiences with the interviewer. I realized that the first study participant, that I interviewed, had a difficult time identifying learning situations in her life. She was able to distinguish the learning situations that she had experienced in school as a child and adolescent, but did not recognize the learning experiences outside formal educational settings. I experimented with several techniques to elicit clearer responses from her regarding her learning experiences. Finally, while interjecting some of my own learning experiences during the interview, she shared some of her personal learning experiences. Thus, the interview evolved into a collection of stories that focused on the participant's learning experiences.

CONCLUSIONS

There are three points that are evident from the study data analysis:

1. The prior formal educational experiences of marginalized adult students has a tremendous influence on their success in current educational experiences.
2. Acknowledging the relationship between the prior and current educational experiences is empowering for the adult student and facilitates positive learning experiences.
3. Being cognizant of the prior and current educational experiences of adult students provides useful information to adult educators that may be integrated into ongoing teaching strategies to ensure student success.

It is evident, from the results of this study, that the socio-learning milieu of adults, as children transcending into adulthood, affects the current learning attitudes of homeless adult students. The challenge of the adult educators is to encourage students to recognize the knowledge gained through life experience and how this knowledge may be useful in current work and life situations. One way to meet this challenge is to acknowledge the transformative learning of students in the classroom. Patricia Cranton (1994) defines transformative learning "as the development of revised assumptions, premises, ways of interpreting experiences, or perspectives on the world by means of critical reflection" (p. vii). (also see Jack Mezirow, 1991 and Stephen Brookfield, 1987).

Homeless adults, like most adults, view a particular situation from a stance that has evolved over their lifetime, based on previous experiences, decisions made, conclusions drawn and the like. These perceptions may be limited by their psychological, socio-cultural experiences, and learning experiences, both formal and informal. It is vital for adult educators to recognize that being cognizant of the multitude of life experiences and their respective outcomes does not necessarily ensure that homeless adults have employed critical thinking and reflection. Much research is needed in order to accomplish this task. Knowledge gained from this endeavor may benefit not only educators of homeless children and adults but also the public agencies that serve their diverse needs. I propose that this work is crucial and may contribute to a concerted effort to provide an equitable quality of life that homeless adults truly deserve.

REFERENCES

Anderson, K. Armitage, S. Jack, D. & Wittner, J. (1990). Beginning where we are: Feminist methodology in oral history. In J.M. Nelsen (Ed.), *Feminist research methods* (pp. 94-112). Boulder, CO: Westview Press.

Brookfield, S.D. (1987). *Developing critical thinkers.* San Francisco, CA: Jossey-Bass.

Cranton, P. (1994). *Understanding and promoting transformative learning.* San Francisco, CA: Jossey-Bass.

Dewey, J. (1963). *Experience and education.* (Collier books edition). New York: Macmillian. (originally published in 1938).

Houle, C.O. (1984). *Patterns of learning.* San Francisco, CA: Jossey-Bass.

Jarvis, P. (1987). Meaningful and meaningless experiences: Towards an analysis of learning from life. *Adult Education Quarterly, 37* (2), 164-172.

Lindeman, E.C. (1989). *The meaning of adult education.* Norman, OK: Oklahoma Research Center for Continuing Professional and Higher Education. (originally published in 1926).

Merriam, S.B. (1994). Learning and life experience: The connection in adulthood. In J.D. Sinnott (Ed.) *Interdisciplinary Handbook of Adult Lifespan Learning* (pp. 74-89). Westport, CT: Greenwood Press.

Merriam, S.B. & Clark, M.C. (1991). Learning from life experience: What makes it significant? *Proceedings of the Annual Adult Education Research Conference* (pp. 179-184). Norman, OK. (Eric Document Reproduction Service No. ED 332 042).

Mezirow, J. (1991). *Transformative dimensions of adult learning.* San Francisco, CA: Jossey-Bass.

Reinharz, S. (1992). *Feminist methods in social research.* NY: Oxford University Press.

Spear, G.E. & Mocker, D.W. (1984). The organizing circumstance: Environmental determinants in self-directed learning. *Adult Education Quarterly, 35* (1), 1-10.

"A GREAT CONSPIRACY":
SELF-DIRECTED LEARNING AMONG PROTESTANT CLERGY IN RUSSIA

Wayne R. Kenney, D.Ed. 1996

ABSTRACT

This study investigated how Protestant clergy in Russia sought ministry education in the years prior to 1987 and what their education and ministry meant to them. Because formal schools and organized programs were forbidden, these clergy undertook clandestine, self-directed learning activities, what one participant described as a great conspiracy. Their collective story presents new insights regarding assump-tions, definitions and issues regarding self-directed learning, adult learners, and cultural and social contexts.

BACKGROUND

The general tone and context of current self-directed learning literature in North America creates a definite contrast with the context of the participants in this study. Understanding their context could not even begin without careful attention to Russia's history. Therefore, an extensive review of Russian history was included in the study's foundational literature review. To merely say that 1,000 years of invasion, occupation, brutal climate, and the 70-year Communist era profoundly shaped and interwove Russian national, cultural, and religious experience could hardly begin to convey the story. Yet space does not permit any more elaboration of the general history even though its impact is crucial. More specifically, under the rule of the Communist Party, the Church suffered a long and erratic period of negative government policies and practices. The more profound costs of that persecution fell upon people. Just as the centralized government attempted to control every aspect of individual life, it's campaign against religion punished religious adherents regarding education, employment, and housing. Imprisonment, exile, and death were regular consequences for religious activity (Smith, 1992; Pospielovsky, 1984; Hill, 1991a).Yuri recalled his own family's story,

> *My grandparents were part of a [Protestant] church which was forcefully dispersed around the region, forbidden to gather for worship. Nevertheless, the members stayed in contact through correspondence. My own grandmother regularly spent hours everyday writing letters to the scattered believers. In 1937 my grandfather was arrested and shot for his involvement with the church*

(Yuri Nikolaiovich, personal communication, 20 June 1994).

SELF-DIRECTED LEARNING

Given the cultural context and experience of the participants in this research, their quest for learning presents a strong case for re-examining self-directed learning theory. On one hand, the participants in this study compare favorably with characteristics of self-directed learners describing initiative, motivation and goals (Caffarella and Caffarella, 1986). On the other hand, significant incongruence occurs between the participants and the prevalent definitions and paradigm. Bonham (1989), Candy (1991), and Spear and Mocker (1984) organized their definitions of self-directed learning around the settings in which learning occurs rather than the learners. Other theorists shaped the definition of self-directed learning to fit a predisposition to the sociological or psychological aspects of self-directed learning (Brockett and Hiemstra, 1992) while others operated on assumptions of a formalized teaching-institutional context (Garrison, 1989). In the diversity of opinions and theories, the pure meaning of the words, self-directed learning--that learning because of initiative, direction and evaluation from the learner--has been lost. In this study, the phrase self-directed learning describes the centrifugal, purer meaning of the words self-directed learning. In other words, the issue is learner-driven activities of learning.

A second major weakness in the current literature is institutional and cultural bias. For example, Candy's (1991) attempt to organize self-directed learning within the two categories of *goal* and *process* reveals an assumption of an instructional system which imposes a goal for the learner: learning to be self-directed. What is lost is the learners' goals and their initiative. On the other hand, Candy's view of the process of self-directed learning emphasizes the learning behaviors and characteristics of learners who are more or less self-directed, motivated by their own learning goal. However, *goal* and *process* are not exclusive of one another. To place the concept of goal only in an instructional context serves the educator at the expense of the self-directed learner.

In addition to these two concepts of goal and process, Candy (1991) presented the paradigm of two domains which he labeled *instructional* and *autodidactic*. Unfortunately, the polarity proves to be artificial while revealing a clear bias toward an instructional context.

The instructional domain presents a range from minimal learner independence to broad learner independence within the context of formalized instruction by teachers. Other researchers also used the instructional domain as their context self-directed learning. The focus tends to be on the role of educators in developing self-directedness in the learners with whom they have contact. Thus, self-directedness is an outcome educators seek rather than a characteristic of motivated learners.

The autodidactic domain represents the other end of Candy's (1991) continuum of autonomy in self-directed learning. Though the Greek root of Candy's (1991) autodidactic, didaskw, means to teach, the focus is on learning (the learners' activity) and not teaching (someone else's activity). Thus, the autodidactic domain focuses on learners as both learners and controllers of the learning. In this domain, the use of an instructor means minimum autonomy; the absence of any authority or controlling agency implies maximum autonomy. Learners retain control even if they enlist instructional help.

The problem with Candy's paradigm lies in contrasting two concepts which do not harmonize on a single continuum. An instructional context does not compare with learner autonomy, especially if one assumes that the instructional context means imposition of institutional goals unrelated to the learners' personal motivation. The dividing issues are control and responsibility. Furthermore, while self-direction may theoretically be a goal for learners operating in Candy's (1991) autodidactic domain (and self-direction may indeed occur as an observable behavior within the instructional domain), Candy's (1991) foundational concepts tend to be oriented to an instructional domain and institutional goals.

METHODOLOGY:

A preliminary, feasibility trip to Moscow, Russia, in 1992 established the validity of the question and probability of gaining access to participants. In June 1994 I returned to Moscow where I interviewed thirteen Protestant pastors, most of whom were sons of ministers and thus able to tell of their fathers' experiences as well as their own. Interview tapes were transcribed and analyzed by accepted qualitative methods, yielding a variety of themes. A follow-up trip to Moscow was made in June 1995, providing opportunity to meet with some of the participants again and report the outcome of the study.

FINDINGS

The experience of the participants in this study create a startling contrast to the current theories and issues of self-directed learning. They had no instructors, no institutions. Their goals were to learn about their faith and their ministry. Their motivation was all their own and not external. Yet it was a rich, complex mixture of religious faith and values, desire for skill development (though not professional), a sense of social and familial responsibility, and a deeply rooted sense of self-identity and purpose. Together, the characteristics of these participants left them no place in any of the current, dominant theories of self-directed learning. Furthermore, the unspoken assumptions of western, democratic cultures fail completely for these participants. The barriers they faced were imposed by law: no schools, no study programs, no freedom to practice religion, no right to assemble to teach or study. Even possessing and sharing religious literature was illegal. In choosing to ignore or circumvent these barriers the participants were guilty of criminal activity. When caught, their conse-quences ranged from loud, intimidating warnings, loss of employment, loss of the family home, to imprisonment and exile. Some participants named relatives and neighbors who suffered death for their religious activities.

Giorgi recalled,

> *We were coming together in secret and we came one by one in order that no one could see that a lot of people were gathering. And we were watching and careful that no one would notice us. The authorities were against systemized study. We also passed books to one another because we didn't have much time together. It all was a great conspiracy.*

Regarding the conflict between their strong motivation for learning and the difficult legal consequences they faced, Pavel said:

> *We paid for our faith . We lost our jobs. We could not continue our education in universities. But we realized that God is more...our treasure.*

Commenting on the way they went about their learning activities, Sasha described how they worked together:

> *We studied what we could with what we had. When we could, we organized study groups. The more experienced persons would take a subject, like history or apologetics, and prepare a lesson to share with everyone else the next time we met.*

The participants in this study were self-directed learners whose motivation was internal and determined. Their attempts at group study, shared leadership, and self-designed organization represented--did not diminish--their individual choices. They did not think about how to be self-directed learners. They simply understood that to accomplish their learning goals they would have to do for themselves. Before 1987 these participants were frustrated by the absence of quality resources and teachers/ experts. In the present, they are eagerly participating in organized instructional programs and do so without having surrendered their self-directedness. They use the training programs as opposed to being subordinated to them.

NEW DEFINITION

The collective story of the participants motivates a rethinking of how we should define and model self-directed learning. As a result the following definition attempts to center self-directed learning on one major characteristic--initiative--with only two variables--control and responsibility.

> *Self-directed learning refers to any and all voluntarily initiated learning activities which are deliberately undertaken by a person, or by persons together, over an extended period of time for consciously defined goals of attaining new or increased knowledge, skill, personal growth, or value-driven beliefs. The constant defining characteristics are: a) the learners' initiative to begin, continue*

and end the learning enterprise; and, b) the learners' choices, especially in the key dynamic areas of control--of the framework, such as resources, alliances, and contractual arrangements; and of responsibility--for the content, such as method, topic, evaluation, and meaning; all of which further the learning project.

The learners' initiative is the unifying issue, with a distinguishing focus on centrifugal, learner-centered activity. The meaning of initiative, as used here, is simply a personal capacity for thinking of and taking action toward a learning project; acting on one's own idea without prior prompting. Initiative is not a new issue; it is present but not specified in much of the discussion of self-directed learning. Learner initiative is also the framework for examining the concepts of motivation and learning goals. In balance, the concept of learner choice represents the outward, visible activities of the initiative. By definition, self-directed learners face a wide array of choices throughout their learning project. In regard to the major variables of control and responsibility; learners may choose to limit one and/or the other as a part of their process of choosing resources or experiences in pursuit of their goals. The issue of setting then becomes secondary, a consequence of other choices. In this study, the focus is on self-directed learning as an observable behavior arising out of the initiative of learners.

SELF-DIRECTED LEARNING SPECTRUM

A new model for organizing self-directed learning follows the above definition. This new model, the Self-directed Learning Spectrum (Kenney, 1995), builds upon learners' initiative as the single major assumption. The learners' freedom to choose (learner choice) provides a continuum which anchors two variables: control and responsibility. Control relates to the framework of the learning activity. That is, decisions regarding participation, setting, goals, time-frame and schedule, technology, and delivery are matters of control for individual learners. Responsibility pertains to the content and process of learning, how the learning is pursued (methods); the specific topics, inquiries, evaluation and applications which the learners focus on within the general topic of the learning project; and the selection and organization of resources, tasks, and personnel by learners themselves.

Format and space limitations preclude the use of a picture or 1,000 words, so the self-directed Learning Spectrum will be briefly described as follows. Two variables, control and responsibility, create a standard 2x2 matrix. The continuum of learner choice is represented by four types of self-directed learners. Since the overarching focus is on the learners, and the learners' initiative provides the unifying assumption, no inference of value or priority may be attached to any of these four types of self-directed learners. These descriptions are based on the definitions and meanings described above.

Type I self-directed learning means that learners have chosen to limit their control and their responsibility in order to achieve their learning goal. Thus, mandatory education is not self-directed learning because the learners are not enrolled by reason of their initiative or choice. A positive example of Type I in the United States would be the person who decides to obtain a private pilot's license. Control and responsibility for the learning project are voluntarily limited in order to conform to an established sequence of prescribed content and skill criteria. Initiative remains the learners' and so does the choice to continue or quit.

Type II self-directed learners have chosen their learning project topic and goal and then choose to pursue their learning project by enrolling in a structured course or program for the actual learning content and process. An example would be persons who, having decided to attain expertise in desktop publishing without having any prior computer experience, enroll in various courses on computer technology, basic and specialized software, graphic design, and printing. The learners retain full control by choosing their own resources (the classes), their own sequence (which classes when), and by deciding when they are ready to take on their first editing job.

Type III self-directed learning takes place within a framework wherein the learners' control of the framework is limited by deferring to others. Perhaps the most immediate illustration of Type III self-directed learning is graduate studies wherein certain structures come with the degree program. These structures include such criteria as entrance requirements, core courses, candidacy hearings, qualifying exams, and research requirements. All of these the learners accept as limiting their control because their learning goal requires the degree outcome. The learners retain full responsibility in their elective course choices and in the research project, which is every graduate student's personal adventure in self-directed learning.

Type IV self-directed learning represents maximum learner choice in both dimensions. Learners have full control in the initiation, the resources, the sequence, and the outcome of their learning. Learners in Type IV are also fully responsible for content, learning methods and time, and formative evaluation. These would be the autodidacts of Candy's (1991) model. The Wright brothers' story serves as a case study of self-directed learners (Cavaliere, 1990) in that they were self-motivated and initiated their own learning projects about principles of flight, design, mechanics, and the experience of others' efforts to fly. They maintained full control and full responsibility throughout their project (Tough, 1979).

There are at least two underlying assumptions in this model. First, self-directedness in any of the four types assumes the use of external resources, including other persons. Learning in isolation from external resources is an unlikely myth at best; and at worst it is an oxymoron. Collins (1991) supported this point by placing learning in the very flow of life itself, thus ridiculing the notion that learning can occur in a vacuum, isolated from the people and things in one's environment. Secondly, the phenomenon of self-direction must assume that the initiative begins with the learners, and that continuation of the learning project is also a matter of the learners initiative.

CONCLUSION:

Before 1987 these participants were self-directed learners fitting the description of Type IV in the Self-directed Learning Spectrum. But the point here, and the point of significance to the theory and literature of self-directed learning, is that the learners' initiative, driven by their own motivation and practical goals, made the method of their learning subordinate to the substance of their learning. In other words, these participants wanted to learn how to be more effective in their ministry. How they learned prior to 1987 were choices made for pragmatic reasons, and which were mainly conditioned by the political and social reality of their context. The setting is secondary; learner initiative is primary. Self-directed learning theorists and researchers must not miss the lesson to neither exalt nor assume one type of self-directed learning as better or preferred over another.

If adult learners are seeking knowledge on their own initiative, the resource persons who serve them must respect the primacy of that initiative. Even though learners may choose to limit their control and responsibility in order to achieve their learning goal, adult educators must resist the temptation to replace the learners' goals with their own or the institution's. This does not mean that criteria and evaluations are negated, or that policies are ignored. It should mean that methods, assumptions, procedures, and policies are originated and applied for the purpose of working with the learners' initiative and furthering the learners' goals. If self-directed learners are internally motivated by practical goals, then adult educators would serve them best by facilitating discovery, providing new information in a collegial way, and participating in developing application strategies.

REFERENCES

Bonham, L. A. (1991). Guglielmino's self-directed learning readiness scale: What does it measure? Adult Education Quarterly, 41 (2), 92-99.

Brockett, R. G. & Hiemstra, R. (1991). Self-direction in adult learning. New York: Routledge.

Brookfield, S. (1984) Self-directed adult learning: A critical paradigm. Adult Education Quarterly. 35(2), 59-71.

Caffarella, R. S. & Caffarella, E. P. (1986). Self-directedness and learning contracts in adult education. Adult Education Quarterly. 36 (4), 226-234.

Candy, P. C. (1991). Self-direction for lifelong learning: A comprehensive guide to theory and practice. San Francisco: Jossey-Bass.

Cavaliere, L. A. (1990). The Wright brothers as self-directed learners: The role and relation of goal setting, feedback and motivation during the process of their self-directed learning project. In H. Long & Associates, Advances in Research and Practice in Self-Directed Learning. Norman, OK: Oklahoma Research Center for Continuing Professional and Higher Education of the University of Oklahoma.

Collins, M. (1991). Adult education as vocation: A critical role for the adult educator. New York: Routledge.

Garrison, D. R. (1989). Facilitating self-directed learning: Not a contradiction in terms. In H. B. Long and Associates, Self-directed learning: Emerging theory and practice. Norman, OK: Oklahoma Research Center for Continuing Professional and Higher Education.

Hill, K. R. (1991a). The Soviet Union on the brink: An inside look at Christianity and glasnost. Portland, OR: Multnomah Press.

Mocker, D. W., & Spear, G. E. (1982). Lifelong learning: formal, nonformal,informal, and self-directed. Information series, No. 241. ERIC Clearinghouse on Adult, Career, and Vocational Education. Columbus: National Center for Research in Vocational Education, Ohio State University.

Pospielovsky, D. (1984). The Russian church under the Soviet regime, 1917-1982, vv. I & II. New York: St. Vladimir's Seminary.

Smith, G. B. (1992). Soviet politics: Struggling with change. New York: St. Martin's Press.

Spear, R. M., & Mocker, D. W. (1984). The organizing circumstances: Environmental determinants in self-directed learning. Adult EducationQuarterly, 35 (1), 1-10.

Tough, A. (1979). The adult's learning projects: A fresh approach to theory and practice in adult learning, (Rev. Ed.). Toronto: Ontario Institute for Studies in Education.

Wayne R. Kenney, D.Ed.
345 Kelly Avenue
Mount Joy, PA 17552
email: WRKenney@juno.com

Copies of the full dissertation available from the author.

Presented at the

Eastern Adult, Continuing and Distance Education Research Conference
Penn State University
University Park, PA
October 24-26, 1996

IDENTIFYING FACTORS THAT PROMOTE PERSPECTIVE TRANSFORMATION IN HIGHER EDUCATION: A MODEL.

Kathleen P. King

ABSTRACT

Rooted in adult learning theory, this research sought to develop a model of inquiry regarding the identification of factors that facilitate perspective transformation in a higher education context. The research questions that were addressed were: 1) How can the factors that promote perspective transformation in adult education be identified? and 2) How do these factors compare in their effects on the process? An instrument based on the work of Matusicky (1982) and Williams (1985) was to be used to assess these factors. However, as the research progressed it became evident that several modifications of the research and instrument were necessary. This work is distinctive in several ways: 1) the attempt to develop an instrument to evaluate perspective transformation, 2) it's focus on a causal-comparative method, and 3) the instrument's empirical design.

INTRODUCTION

Adult educators are increasingly mindful of the many ways in which adult learners grow and change as a result of their educational experiences (Brookfield, 1986; Kegan, 1994; Taylor & Marienau, 1995). There are multiple links between adult learning and adult development; the connections are web-like because the two processes are interdependent and interface in many facets. Within this context, the process of adult development has been identified by some as a transition from one perspective scheme to another (Kegan, 1994; Taylor & Marienau, 1995). In turn, this process of a shifting perspective meaning has been identified as a perspective transformation by many theorists and researchers (Brookfield, 1986, 1995; Cranton, 1994; Mezirow & Associates, 1990). The questions addressed by this research were: How can the factors that promote perspective transformation in adult education be identified? and How do these factors compare in their effects on the process?

The research sought to answer these questions by crafting an instrument that would provide the desired empirical data. As the work of research, pilot studies, and related discussions progressed, the original research questions needed to be modified in several ways. The resulting model of research and prototype instrument prove valuable as guides for further work on this topic.

TRANSFORMATIONAL LEARNING

Educators approach their work and research from diverse educational philosophies; one of these is a humanistic philosophy of education. It is the humanistic educator's great desire that the learner fully integrate new ideas, concepts and knowledge into their current knowledge base in order to reach their fullest personal potential. This is the process of the learner making the knowledge their own. With this as a primary objective of higher education (Tennant & Pogson, 1995), the educator needs to know how to encourage and facilitate this experience through the curriculum.

The perspective transformation theory was originally identified in women re-entering higher education (Mezirow, 1978). Mezirow (1991) describes the experience as "Rather than merely adapting to changing circumstances by more diligently applying old ways of learning, [adults] discover a need to acquire new perspectives in order to gain a more complete understanding of changing events" (p. 3). A similar view is represented by Brookfield (1986), "... significant personal learning might be defined as that learning in which adults come to reflect on their self-images, change their self-concepts, question their previously uncritically internalized norms, and reinterpret their current and past behaviors from a new perspective" (p.213). The perspective transformation process calls for critical thinking to focus on the learner's beliefs, values and understanding to compare them to new understanding and to "negotiate" an integration of the often diverse concepts (Brookfield, 1986).

Theorists, educators and researchers have openly discussed and criticized Mezirow's work in order to further refine the perspective transformation theory (Cranton, 1994; Taylor, 1996; Tennant & Pogson, 1996). In addition, several researchers/authors have specifically discussed how to bring transformative learning into the classroom (Brookfield, 1986; Cranton, 1994; Mezirow & Associates, 1990; Taylor, 1996), and their focus has been on developing curriculum that will promote transformative learning. However, the variables that affect transformational learning are many, and little research has been done to empirically evaluate them (E. Taylor, 1995). This is especially true of the theory's application in higher education.

A review of the literature has confirmed the findings of E. Taylor in "Beyond the Rhetoric; What do Empirical Studies Say About Mezirow's Transformative Learning Theory?" (1995) that there are few empirical assessment models to choose from for this proposed research. Perspective transformation has been studied primarily with qualitative methods; the subject matter truly lends itself to this methodology because of the central place of individual experience in perspective transformation (Shaw, 1993). Nonetheless, a more positivistic study could provide valuable information about the role of individual factors and their interrelationships. Therefore, this study was to use a causal-comparative model adapted from earlier educational research (Matusicky, 1982; Williams, 1985).

The factors that educators believe promote transformational learning have been noted in the literature. Among those noted are several teaching methods: journaling, self-assessment and the use of critical incidents (Brookfield, 1995; Cranton, 1994). They have not; however, been examined and documented as to their causal effect on perspective transformation or compared one factor to another. The factors that were expected to be included in the original research proposal were: student self-assessment (K. Taylor, 1995; Taylor & Marienau, 1995), critical thinking assignments (journals, critical incidents, collaborative work) (Brookfield, 1986; Cranton, 1994; Mezirow & Associates, 1990), the learning environment, teacher input/dialogue, peer input/dialogue, student support services, age, family support, life changes, external confrontation, inner disillusionment (Scott, 1991), and development of one's voice (Belenkey, Clinchy, Goldberger & Tarule, 1986; Kegan, 1994; Taylor & Marienau, 1995).

THE RESEARCH MODEL

The proposed research was to create a model and instrument by which the factors that promote perspective transformation in the higher education classroom could be determined and evaluated. The focus was the classroom setting, but because transformational learning encompasses the entire life of the learner, other experiences and circumstances were recognized as being important determinates as well. The research was to use an existing assessment model as the basis for identifying the factors. A questionnaire was to be developed and distributed to second and third semester college students. The participant questionnaires and interviews were employing a Likert scale and short answer format to rate how much the facilitating factors promoted the students' transformational learning.

This questionnaire was presented in two different formats to two groups of students and reviewed by several educators. The first group of students were a graduate education class (N=15) and they reviewed the initially proposed instrument as a group discussion. The results of this discussion resulted in many alterations in the questionnaire; it was this revised format which a second group of undergraduate students (N=8) were asked to fill out. Discussions with several educators provided further insight into the focus and format of the instrument (P. Lawler, personal communications, May 1996; June 1996; G. Shaw, personal communication, February 16, 1996; K. Taylor, personal communication, January 31, 1996; March 31, 1996; R. Thurlow, personal communication, June 1996, R. Wright, personal communication, April, 1996). The questionnaire garnered substantial comments and encouragement from the educators, and sparse results from the non-educators. This demonstrated several additional alterations that were necessary and that would significantly change the initial research model and the instrument before a more comprehensive study could be conducted.

NECESSARY MODIFICATIONS

CHANGES IN FOCUS. First was the realization that students who had been participating in a higher education setting for several semesters needed to be targeted. The topic and survey demanded an older student, an adult learner, with a breadth of adult education experience from which to draw observations about a perspective transformation. This began to move the focus of a continuation of the study from one local two-year college to several adult education programs within higher education in the geographical area. This was further confirmed as the trial study demonstrated the necessity of having a significant number of participants in order to be able to examine perspective transformation. A 2:1 ratio began to be considered as a guideline for further studies where 200 surveyed students might yield 100 who had a perspective transformation related to their education; this decision was based on discussions and collected data.

Another aspect of changing the focus of the study was that of the perspective transformation itself. The instrument was not explicit enough to prompt responses about perspective transformation in education. Finally, the factors (i.e., self-assessment, critical thinking, learning environment, etc.) that were being considered were too broad and would need to be trimmed in number and grouped. In an attempt to cover all of the factors and identify them with perspective transformation stages, the instrument became unwieldy in size.

IDENTIFY TO EXAMINE. How were the factors being assessed in this research project? Initially the aim had been to "identify and isolate" the factors that promoted perspective transformation. But in fact, these factors had already been noted in the literature, and the study was actually testing whether they truly effected the perspective transformation as expected. This would change the focus from "identifying" or "isolating" the factors to "examining" the factors previously identified in the literature. The aim of the research became: "Through examination, provide evidence to show whether the expected factors really promote transformational learning in adult learners."

FACTORS TO ACTIVITIES. A third major area of change was regarding the word "factors." As the research progressed and thought was given to analyzing results, the term became confusing. Usually in statistical analysis a factor is a construct that represents several variables grouped together (e.g., factor analysis). Furthermore, the primary aim of the research was to evaluate what was done in the classroom to promote perspective transformation rather than the effects of life experiences and other influences. Certainly these other influences were powerful, but the study had to have reasonable and clearly defined limits. Indeed, the literature focused on the learning activities and the aim of this research was to evaluate them as to causality and perhaps their inter-relationships. These observations resulted in the modification of the original term, "factors," to the more precise "activities." The research question had now become: "Examining activities that promote perspective transformation among adult learners in higher education."

CHANGES IN THE INSTRUMENT. The changes in the instrument that were indicated were many. This has demonstrated the need for more extensive interviews and pilot studies to provide information for the emerging instrument. However, the task at hand was much larger and more difficult than previously expected, and the final changes in the instrument are still in progress and will be fully documented at the conclusion of that additional research.

The vocabulary of the instrument proved confusing for those unfamiliar with perspective transformation. The original instrument was patterned after Williams' (1985) professional evaluation instrument that used ten statements to represent the ten perspective transformation stages delineated by Mezirow (1991). The study conducted in this project was a self-report where the participant was to use a Likert scale and rate modifications of Williams' items. They were then asked to rate those activities and experiences that influenced each stage. This created a very lengthy instrument that provided sparse, inconclusive data. Clearly, information needed to be gathered regarding the language that would best communicate the research concern to the participants. One major obstacle was that the perspective transformation experience needed to be clearly described in non-education jargon for the participants.

The format of the instrument also needed to be reconsidered. As stated, the instrument had become too lengthy, and a better focus on the research is needed to bring it into a more manageable form. This was a self-reporting instrument and as such it needed to be "user-friendly" even for non-education major undergraduate students. Too many words and too many items would make this survey both unappealing and continue to cause the cooperating sample size to shrink.

Instructions for the use of the instrument also needed to be more clearly stated. The instructions referred to adult development and education, but the students had difficulty understanding the concept of a perspective transformation from the brief, technical descriptions embedded in the items they were rating. Another format would illicit terms and explanations more readily comprehensible to the sample.

CONCLUSION

As this research began, an existing assessment instrument was to be modified in order to "identify the factors that promote perspective transformation in higher education." At the close of this phase of the research, the focus has transformed to "examining activities that promote perspective transformation among adult learners in higher education." The research was critical in delineating concerns, concepts and methodologies that needed to be reconsidered in such a study.

In summary, significant findings of this work were that 1) the focus of the study had to be much sharper regarding the age and educational experience of the participants, 2) a greater number of participants than anticipated would be necessary, 3) the specific perspective transformation that was to be studied needed to be focused, 4) the study needed to be identified as an "examination," or testing, of learning activities cited in the literature and this needed to be recognized, 5) "activities," rather than factors, was a more accurate description of the items assessed in the study, and 6) the instrument needed to be greatly modified in clarity, vocabulary, format and ease of use. The research that was conducted highlights the difficulties inherent to the creation of an instrument to assess perspective transformation experiences in education. It has focused the research and exposed hidden research assumptions. In addition, it has laid groundwork for future endeavors in this area.

Based on these findings, additional research queries should be conducted into the transformational learning process in adult and higher education. The research model and prototype instrument presented in this study could serve as a basis for future empirical inquiries into transformational learning. Not only the activities in the higher education classroom should be investigated, but also the effects of factors that could not be included in this study (i.e., the many facets of the classroom environment, life changes, inner disillusionment, etc.). Research methods that would facilitate carefully crafting a more effective instrument should include interviews and pilot studies.

Adult learning and adult development share common ground in transformational learning. As adult educators and researchers continue to explore and understand this relationship it will produce many insights into educational practice. As we understand more about transformational learning, continued research could impact adult education curriculum, program planning, teaching methods and support services.

REFERENCES

Belenky, M., Clinchy, B., Goldberger, N., & Tarule, J. (1986). Women's ways of knowing; The development of self, voice and mind. New York: Basic Books.

Brookfield, S. D. (1995). Becoming a critically reflective teacher. San Francisco: Jossey-Bass.

Brookfield, S. D. (1986). Understanding and facilitating adult learning. San Francisco: Jossey-Bass.

Cranton. P. (1994). Understanding and promoting transformative learning; A guide for educators of adults. San Francisco, Jossey-Bass.

Daloz, L. A. (1987). Effective teaching and mentoring; Realizing the transformational power of adult learning experiences. San Francisco: Jossey-Bass.

Kegan, R. (1994). In over our heads; The mental demands of modern life. Cambridge, MA: Harvard University Press.

Matusicky, C. A. (1982). In-service training for family life educators; An instructional model. Unpublished doctoral dissertation, University of Toronto, Canada.

Mezirow, J. (1978). Education for perspective transformation; Women's re-entry programs in community colleges. New York: Teacher's College, Columbia University.

Mezirow, J., & Associates. (1990). Fostering critical reflection in adulthood; A guide to transformative and emancipatory learning. San Francisco: Jossey-Bass.

Mezirow, J. (1991). Transformative dimensions of adult learning. San Francisco: Jossey-Bass.

Scott, S. M. (1991). Personal transformation through participation in social action: A case study of the leaders in the Lincoln Alliance. Unpublished doctoral dissertation, University of Nebraska, Lincoln, Nebraska.

Shaw, G. (1993). Adult learning in rural and remote contexts; A qualitative study on the effects of strategies and media on learners engaged in adult teacher education and training in the Northern Territory. Unpublished doctoral dissertation, Deakin University, Geelong, Victoria, Australia.

Taylor, E. (1995). Beyond the Rhetoric; What do empirical studies say about Mezirow's transformative learning theory? Proceedings of the Association of Educational Research Conference, 1995, 313-320.

Taylor, E. (1996, May/June). Review: Understanding and promoting transformational learning. Adult Learning, 7, (5), 6, 8.

Taylor, K. (1995). Sitting beside herself; Self-assessment and women's adult development. In K. Taylor & C. Marienau (Eds.). (1995). Learning environments for women's adult development; Bridges toward change. New Directions for Adult and Continuing Education, 65, 21-28.

Taylor, K., & Marienau, C. (Eds.). (1995). Learning environments for women's adult development; Bridges toward change. New Directions for Adult and Continuing Education, 65. San Francisco: Jossey-Bass.

Tennant, M., & Pogson, P. (1995). Learning and change in the adult years; A developmental perspective. San Francisco: Jossey-Bass.

Williams, G. H. (1985). Perspective transformation as an adult learning theory to explain and facilitate change in male spouse abusers. Unpublished doctoral dissertation, Northern Illinois University, Dekalb, Illinois.

Kathleen P. King, Computer Technology Faculty, Pennsylvania Institute of Technology, 800 Manchester Avenue, Media, PA 19063. Email: KPKing555@aol.com

Presented at the Eastern Adult, Continuing and Distance Education Research Conference, Penn State University, University Park, PA, October 24-26, 1996.

EFFECTS OF GENDER DIFFERENCES ON COLLEGE OUTCOMES FOR ADULT GRADUATES

Claudia M. Knezek

ABSTRACT

Little is known about the outcomes of a college education for adult graduates. The purpose of this research is to compare and contrast the outcomes of men and women college graduates in the domains of learning skills and disposition to learn, further education, occupational attainment, and self-described benefits of a baccalaureate degree. The group of 461 respondents from the 1976, 1981, and 1986 graduates of a northeastern university was split according to gender with 56% of the population being men and 44% women. The guiding question in each of the outcome analysis was, in what ways and to what extent are the outcomes of a college education similar and different for men and women adult graduates? T-tests were mostly used to identify the similarities and differences in role behavior by gender. There appeared to be few differences in the outcomes of several domains, which may be related to the demographic similarities between the population of men and women. However, men tended to differentiate between skills development and personal development, while women treated both as an integral part of the learning process. Most importantly, further research is needed on why women outperform men academically.

INTRODUCTION

Many institutions of higher education have supported adult enrollments through continuing education programs that are merely additions to the established curriculum. Prior research on adults in higher education (Kasworm, 1990) has been based on implied deficiencies of this population. Furthermore, gender differences may create even more of a disparity in the outcomes of adult college students because behavior patterns often appear as deficiencies for women functioning in a male-oriented environment. The purpose of this study is to provide researchers with a better understanding of the effects of gender differences on college outcomes for adults in the domains of learning-skills and disposition to learn, further education, occupational attainment, and self-described benefits of a college degree.

BACKGROUND

To date, limited research (Astin, 1976; Lehmann, 1974; Sosdian & Sharp, 1979, Mishler, 1983) has been conducted on the college outcomes for adult students, specifically graduates of external degree programs and continuing education programs. One relevant research study was conducted by Mishler (1983a) who examined the impact of earning a bachelors degree for persons entering college at age 25 or older . Graduates from the University of Wisconsin classes of 1976, 1977, and 1978 responded to a four-page survey on their current employment status, goals upon entering college, and reported gains from the college experience. Sixty-four percent returned questionnaires, of which half were men and half women. Mishler (1983a) reported that most men (83%) had been full-time employees before reentering college, while only 28% of the women began college as full-time employees. The kinds of jobs held by both men and women were in the "professional, technical, and managerial" field (56% men and 51% women). Personal gains were identified as sense of personal achievement (90%), intellectual curiosity (76%), understanding your own abilities (66%) by both men and women graduates.

Yarosz (1994), also conducted a comprehensive follow-up study on adult male graduates of an evening college, five, ten, and fifteen years after graduation to determine the effects of college on occupational attainment. Nakao and Treas's (1992) update of the Duncan Socioeconomic Index

(SEI) was adapted by Yarosz (1994) to measure the occupational attainment of the graduates at time of entry, at time of graduation, and at the time of the survey. SEI and age were regressed using the LISREL procedure. Findings showed that those who were out of school for five years did experience occupational gains, but the greatest gains were recorded for those who were out of college for ten years. Those who were out of college for fifteen years showed movement in the opposite direction, which meant that a plateau was observed as the graduates got older.

Warren (1995) used the same data set as Yarosz, but compared two age cohorts of 208 women with respect to learning experiences while in college and outcomes related to learning, further education, career development and benefits from college. Comparisons were made between "semi-on-time" or traditional-aged college graduates (YA) and the responses of "off-time" graduates, who were age 25 and over when they entered college (MA). The findings showed that only 25% of the sample continued their formal education and received graduate degrees. In direct contrast, a greater number of women attended non-credit educational and training activities during the year preceding the survey (65% YA and 76% MA). Further classification of participation in the specific types of activities showed that 75% attended employer-sponsored education, 58% attended professional or trade association programs, and 22% went to college or sponsored activities. Warren (1995) also found that 80% of the graduates had been employed prior to their enrollment in college; however a larger percentage of young adults (YAs = 87%) than mature adults (MAs = 75%) were employed. Interestingly, there were no homemakers identified in the YA group.

Warren found that there was nearly an even split between the percentage of managers (31%) and professionals (28%). Over time there was a 24% increase in professional specialties, such as teachers, nurses, counselors and other traditional occupations. Of the 47% response rate for graduates who reported on employment changes and job satisfaction, 56% of the YAs and 43% of the MAs obtained better jobs with 46% of the YAs receiving promotions and 35% having changed careers. Warren (1995) compared the graduates' goal upon entering college to the gains that they attributed to earning their degree. Convenience was reported by 55% of the YAs and 45% of the MAs as a reason for enrollment with 40% of the YAs and only 12% of the MAs reporting that "being able to work during college" was the reason for their enrollment. Twenty-eight percent of the YAs and 32% of the MAs indicated that reputation of the university and quality of the curriculum were the reasons for their enrollment.. A further look at the "other" response category (overall 50% response rate) identified "social factors," such as enjoyment Warren concluded that student roles are generally preparatory for adult activities of full-time employment and marriage, but for the women in the study, this was an additional role that had to be performed in conjunction with many other adult activities.

GENDER DIFFERENCES OUTCOME STUDY

This research study on gender differences is a secondary analysis of data obtained from the graduating classes of 1976, 1981, and 1986 at a major northeastern university. A total of 895 graduates were mailed surveys with a 52% response rate of 461 graduates. The group of 461 graduates was split according to gender with 56% of the population being men and 44% being women. The mean ages for both groups were the same: 26 at entry, 31 at graduation, and 42 at time of the survey. Eighty-eight percent of the men and 81% of the women had been previously enrolled in another college.

FINDINGS

Following the "I-E-O" model (Input-Environment-Outcomes) that was used by Warren (1995) and adopted from Astin (1976), the findings begin with a descriptive characteristics of the groups. College experiences are then examined according to the outcome domains that were reported after leaving college.

First, the question of whether or not the graduates had children and their birth dates was used to gain a better understanding of family roles, since marital status was limited to the identity of the respondents at time of the survey. In contrast to previous studies of adult returning women being predominantly mother (Astin, 1976; Sosidan & Sharp, 1983; Mishler, 1983a), there were ten percent more men (73%, n = 191) than women (63%, n = 130) (t = -2.5, p< = .01) reporting that they were parents. The results showed that the ages of the children for "fathers" was split, with 27% being of preschool age and 27% falling into the school-age category. Children of the "mothers" group were older with only 12% being of preschool age and 33% falling into the school-age category. Twenty-eight percent of both groups also did not have their first child until after graduation from college. In support of Warren (1995), ages of children did not appear to affect when men complete their college education.

COLLEGE EXPERIENCE

The most popular majors for men were Management (n = 64), Accounting (n =64), Marketing (n = 17), and Economics (n = 14). For women, the most popular majors were Accounting (n = 30) and Management (n = 27), followed by English (n = 16), and Psychology (n = 14). A comparison was made between the cumulative grade-point averages that were supplied by the Dean's office, which included 244 for males and 174 for females. The mean final grade point average was 2.85 for the men and 3.16 for the women (t = -6.39, p < = .01). Thirty-eight percent of the men and sixty-five percent of the women graduates attained a final grade point average of 3.0 or better. Also, fewer men than women achieved high or highest honors (3.5 or better) with only 10% of the men and 31% of the women achieving these scores.

DOMAIN OF LEARNING SKILLS AND DISPOSITION TO LEARN

The differences and similarities between men and women graduates with respect to the impact of college on learning outcomes was determined through comparison of the means, by gender, for the learning outcome variables. The embedded " Learning Outcomes" scale, which was in part modeled after Mishler (1983a), included the variables of "understanding abilities and limitations, ", "discovering and enjoying knowledge," "sense of personal competence," "working independently," "persisting at difficult tasks," "learning on your own," "organizing your time," "working effectively in groups," and "defining and solving problems." Likert-type items ranged from "1" (very little) to "5" (very much) with the responses being compared by using t-tests to determine significant differences. "Discovering and enjoying knowledge" produced a significant difference (t = -2.76, p <=.01) along with "organizing your time" (t = -2.05, p. <=.05). The learning outcomes scale was subjected to principal components factor analysis (Varimax rotation) to determine if there were gender differences inherent in the scale (Darkenwald, 1995). The criterion for loading was .50. The items that loaded high for both men and women (working independently, persisting at difficult tasks, learning on your own, and organizing your time) pertain to "learning skills" and were labeled as such. "Personal growth", the second factor was similar for both males and females in that the first and second items were highly loaded and can be interpreted as indicating personal growth and self knowledge. However, for women, working in groups also loaded onto factor 2, and this might be construed to mean that interpersonal relationship kinds of outcomes are seen by women as part of their personal growth.

DOMAIN OF FURTHER EDUCATION

The differences and similarities between male and female graduates' participation in graduate education, continuing education and training was examined within the domain of further education. A total of 91 respondents, 38 men and 54 women, indicated that they had graduated from an advanced degree program. The most popular degree was the M.B.A., with 55% of the men and

26% of the women having earned this degree. More men (7.7%) than women (5.8%) reported that they had earned Ed. D., Ph.D., D.B.A., or D.S.W. degrees.

Approximately the same proportion of women (72%) and men (69%) reported that they had participated in non-credit education/training during the year prior to the survey. The highest participation rate for both men and women was in employer-sponsored training programs with 59% of the men and 55% of the women reporting that they had attended such programs during the year prior to the survey. Only 15% of the men and 16% of the women attended college/university sponsored programs. Non-work related education was slightly more popular for women (39%) then men (31%). In all program areas both men and women most frequently reported that they had participated in 1-32 hours of training in the previous year.

DOMAIN OF OCCUPATIONAL ATTAINMENT

A total of 466 (259 men/208 women) graduates reported on their occupation prior to entering college. The greatest number of men (82.2%) and women (69.7%) identified that they were engaged in full-time employment, while more women (10.1%) than men (4.6%) were employed part-time just prior to entrance into college. None of the men were homemakers, but 14.4% of the women reported that they were full-time homemakers when entering college. The overall occupational trend for both men and women was to become full-time employed; however it appeared that women had more flexibility to accommodate their role as "college students." At the time just prior to graduation, the number of full-time employed men steadily increased while the number of women declined somewhat, with a greater percentage of women reporting that they were part-time employed, full-time homemakers, or full-time students. Interestingly, the gap between full-time employed men and women narrowed over time to a 10% employment difference for this group, which was considerably less than the U.S. Department of Labor's (1991) national average of 20%.

Categories of Employment

The gender analyses of employment outcomes were based on the six major occupational categories (Yarosz, 1994) with the eight occupational classifications (Warren, 1995) used for descriptive detail in identifying occupational trends. A total of 397 (232 men/165 women) responses were obtained for occupation at just prior to entrance into college (MAJOC 1). The number increased steadily to 403 (243 men/160 women) at time of graduation (MAJOC 2), and 421 (245 men/176 women) at the time of the survey (MAJOC 3).

At the time of entrance into college (MAJOC 1), nearly three times as many men (29.7%) as women (8.5%) reported their occupation as being in the managerial and professional classification (code 1). The technical, sales, and administrative support classification (code 2) was the most common for both the men (53.9%) and women (87.3%). At the time just prior to graduation (MAJOC 2), an upward occupation shift into the managerial and professional specialty classification (code 1) occurred for both men (17.6%) and women (6%), while the number of men 16.1%) and women (9.3%) employed in the technical, sales, and administrative support field had significantly declined. A slight increase occurred for both men (1.8%) and women (4.5%) who were employed in service professions.

Interestingly, the most significant employment changes appeared in the managerial and professional specialty classification (code 1) for both men and women at time of the survey (MAJOC 3). There was a 29.8% gain between MAJOC 2 and MAJOC 3 for men entering the managerial and professional specialty, which resulted in over a 47.4% gain between MAJOC 1 and MAJOC 3. An even greater increase occurred between MAJOC 2 and MAJOC3 for women (44.6%) who became managers and professionals, which resulted in an overall gain of 50.6%.

An additional analysis was conducted on the major occupations of full-time continually employed men (N = 177) and women (N = 94) graduates in order to identify whether or not continuous employment affected the gains that were previously attributed to the benefits of a college degree. Surprisingly, the findings were comparable across MAJOC 1, MAJOC 2, and MAJOC 3 for the continually-employed groups as they were for the overall population. It may be concluded that the gains in employment are related to attainment of the college degree rather than the benefits of continuous employment for both men and women.

DOMAIN OF SELF -DESCRIBED BENEFITS OF A BACCALAUREATE DEGREE

Graduates were asked to respond to an open-ended question on the reasons why they had decided to enroll in the college. The responses were clustered into several categories with location being the most frequently reported reason for attendance (men = 49.4% and women 47.1%). Social reasons was the least important motivator for the graduates (men = 1.2% and women = 1.0%). These adult men and women were nearly equally concerned about the convenience of attending school, the quality of the education, and the cost of tuition and least influenced by the social aspects attributed to college life.

A second open-ended question with multiple-answers addressed the primary benefits that were gained from the graduate's studies at the school. Both groups (men 37.9%, women = 33.2%) most frequently identified receiving a "quality education" and a benefit gained from their college education; while "fulfillment" was the sent among the men (23.8%) and women (32.2%). Also the least frequently reported gain was "got a job" with a response rate of 1.2% for men and 3.4% for women. The category of "self worth was considerably more important for women (28.8%) than men (16.5%); which possibly confirmed Barnett's (1992) observation that women's identity is based on their family role.

Although convenience and ability to work and earn a degree influenced the decision to attend college, both the men and women in this study had entered college to attain a "quality education" which is exactly what they had most often reported as having gained from their college experience. Beyond personal "fulfillment", women more so than men appeared to have increased their sense of "self worth" after attaining a college degree. Also, social interactions appeared to be more important to women than men.

CONCLUSION

When reporting on gender differences attributed to earning a baccalaureate degree, there appears to be little difference in the outcomes of several domains, which is probably related to the demographic similarities between the population of men and women. However, further exploration reveals a wealth of information for consideration by college administrators, counselors, and adult educators.

Of major concern is the multiple roles of adult college students, particularly the roles of women. Contrary to past history, the majority of women in this study were employed outside of the home. Many of this group also maintained the major share of parenting responsibilities; therefore, educators need to be aware that the development of time management and organizational skills may be more critical for women than men.

Another learning difference between men and women, supported by gender based research, was that men differentiated between skills development and knowledge, while women treated skills and knowledge as one integral part of the learning process. Interestingly, the responses from the domain of self-described benefits of the baccalaureate degree affirmed an overriding importance of having gained individualized skills for men, with social experiences and knowledge having been gained by women. Consequently, these self-reported benefits further confirm the need for adult educators to consider balancing the opportunities for affiliation and independent competition within the academic environment.

Beyond the differences in leaning styles of men and women college graduates, this study most importantly suggests a need for further research on why women outperform men academically. Perhaps, research conducted on gender differences in academic performance, using other populations, will possibly support the findings of this study, thereby providing additional background for adult educators on the gender difference that exist within the college population of adult learners.

REFERENCES

Astin, H. S. (Ed.). (1976). Some action of her own. Lexington, MA: D. C. Heath (Lexington Books).

Darkenwald, G. G. (1995). Adults in college: Experiences and outcomes. 1991 Rutgers University College Project. Unpublished manuscript.

Kasworm, C.E. (1990). Adult undergraduates in higher education: A review of past research perspectives. Review of Educational Research, 60 (3), 345-372.

Lehmann, T. (1974). Success after graduation. Saratoga Springs, NY: Empire State College, Office of Research and Evaluation.

Mishler, C. J. (1983). From adult learner to wage earner. What happens to homemakers after college education. Journal of NAWDAC, 3, 15-21.

Mishler, C. J. (1983a). Adults' perceptions of the benefits of a college degree. Research in Higher Education, 19, 213-230.

Nakao, K., & Treas, J. (1992). The 1989 socioeconomic index of occupations: Construction from the 1989 occupational prestige scores. Working paper.

Sosdian, C. B., & Sharp, L. T. (1978). The external degree as a credential: Graduates' experiences in employment and further study. Washington, DC: National Institute of Education.

United States Bureau of Labor Statistics. ( ). Occupational Outlook Quarterly, 37 (3).

Warren, R. L. (1995). Adult women: Outcomes of earning a baccalaureate degree. (Doctoral dissertation, Rutgers University).

Yarosz, D. J. (1994). The occupational attainment of adult evening college male graduates. (Doctoral dissertation, Rutgers University).

Dr. Claudia Knezek
Rutgers Center for Government Services
33 Livingston Avenue, Suite 200

New Brunswick, N.J. 08901

Presented at the Eastern Adult, Continuing and Distance Education Research Conference, Penn State University, University Park, PA, October 24-26, 1996.

FACULTY AWARENESS AND USE OF ADULT LEARNING PRINCIPLES

Patricia A. Lawler, Ed.D.
Associate Professor, Center for Education

Arlene D. DeCosmo, Ed.D.
Dean, University College

Stephen C. Wilhite, Ph.D.
Dean, School of Human Service Professions

Widener University, Chester, PA

Abstract: This research explored the awareness and use of adult learning strategies by faculty in a mid-size comprehensive university. Through initial and follow-up surveys and interviews, participants in a faculty development initiative reported an awareness of, but little use of these strategies prior to attending the workshops. Results suggest that faculty development programs should be focused on implementation issues. Researchers found a rich pool of data to be used in planning subsequent workshops.

This paper presents a research study conducted from September, 1994 through January, 1995. The purpose was to identify faculty awareness of adult learning principles and methods and their use in college classrooms. Prompted by the initiation of a faculty development agenda by university administration, the study sought to answer questions regarding goals and objectives of this agenda in relation to the reality of classroom instruction. As the university sought to address the demographic changes in its student population and their implications for classroom learning and retention, it provided workshops on teaching strategies, many of which came from the knowledge base of adult education and learning.

The discipline of adult education and adult learning provides a substantial body of knowledge and research on the principles of adult learning (Brookfield, 1986; Houle, 1992; Knowles, 1980; Merriam, & Cunningham, 1989; Peters & Jarvis, 1991). This information and its use can be helpful in meeting the challenges of today's classroom (Apps, 199 1: Halpern & Associates, 1994; Lawler, 1991), The adult learning literature provides a plethora of strategies and methods which foster active participation, collaboration and reflective thinking. Is this wealth of information known to faculty in traditional educational settings? Is it utilized in their classrooms?

The Research -- The Surveys

This study sought to answer these questions and investigate the underlying assumptions regarding the use of adult learning principles and methods by faculty in a mid-sized comprehensive university. The researchers were the Dean of University College who was also responsible for the faculty development initiative, the Dean of the School of Human Service Professions whose faculty worked primarily with adult students in a variety of graduate programs, and a professor with a background in adult education and learning. All had an interest in adult learning and faculty development. For this study, they utilized qualitative and action research methods (Schensul & Schensul, 1992) to seek not only information, but solutions to problems found in implementing successful faculty development programs.

During the 1994-95 academic year, the university initiated a series of faculty development workshops on teaching effectiveness for its 250 faculty members. In the Fall 1994 workshops, topics addressed cooperative and active learning and the use of role plays and simulated games in the classroom. In Spring 1995, workshops included cooperative learning, more effective lecturing, strategies for freshmen and multimedia technology. Faculty attending the workshops were asked to volunteer to complete a survey prior to the presentations. On the survey, the respondents indicated their familiarity with and their use of a variety of instructional techniques, along with their acceptance of adult learning principles. During the Fall workshops, 41 faculty replied and while at the Spring workshops, 18 additional faculty members responded, approximately half of those attending the sessions at which the surveys were distributed. It was evident from the initial surveys that the overwhelming majority of faculty reported awareness of a variety of instructional methods, such as, small group discussions, cooperative learning activities, role plays, debates, and out of class group work. However, over half of the faculty also reported little or no use of these techniques in their classrooms. When asked about their level of agreement with statements illustrating principles of adult learning the faculty for the most part agreed with five of the six concepts:

> The physical and social climate of the classroom can impact how learning takes place.
> The student's past and present experience is an asset in the classroom.
> Student initiated learning can be as effective as learning initiated by a teacher in a classroom.
> Students can benefit from more that one model of classroom presentation.
> Students are not too inexperienced to provide input into learning objectives and class progress.

The level of acceptance for the following statement was somewhat lower than for those above:

> Group work in the classroom is a suitable substitute for lecture.

A six month follow-up survey was conducted with the respondents to assess their reasons for attending the workshops, their perceptions of the usefulness of the concepts presented and the degree to which they had incorporated the concepts presented into their teaching. Approximately half of the original respondents returned the follow-up survey. They reported that an interest in new classroom strategies was the main reason for attending a workshop. Sixty-two percent of the faculty who responded after attending the workshop on active and cooperative learning reported that they had implemented some of the concepts presented in their classrooms since the workshop. Eight-nine percent who attended the workshop on role plays utilized some concepts, and 89% of the respondents who attended one of the spring workshops reported utilizing the concepts presented. However, only 29% of the respondents incorporated concepts from the workshop on simulated games. Those who did not implement any new strategies indicated that the techniques were not useful or were difficult to implement in the courses being taught and that the presentations did not include enough examples of practical applications. Whether or not they had implemented the concepts, the faculty reported a continued interest in learning more about new strategies, such as, multimedia in the classroom, facilitating group discussions and the use of case studies. When asked what their preferred means of learning about new classroom techniques were, the most frequently endorsed responses were "discussing the concepts informally" and "attending workshops on campus." In response to the openended question, "What is your biggest challenge in the classroom today?", the most frequently cited issues were motivating students to do their coursework and dealing with the wide range of academic abilities of the students in the classroom.

The Research -- The Interviews

To gain more insight and expand the research, in-depth personal interviews were then conducted with six faculty who had responded to the follow-up surveys and volunteered for the interview. All six faculty had included teaching activities in their classroom as a result of the faculty development seminars. For most, the seminars served to reinforce attitudes or behaviors that they had already held or exhibited. These faculty appeared to value a "how to" approach for learning new techniques. Although all mentioned the need for theory, they felt that in order to implement something new in the classroom there was great value in experiencing it ahead of time. One specifically mentioned the value of a "live demonstration" which would include the possible problems that might happen in the classroom as well as the benefits of the technique. Most of the faculty mentioned that they felt they had support for the improvement of teaching from their colleagues, their department head and/or their dean. Many mentioned informal discussion with peers concerning developing new approaches in the classroom. Three mentioned the use of mentors as an aid in making changes in their teaching style. When describing the mentoring relationship, faculty spoke of both technical and emotional support.

Time was mentioned twice as a reason for not implementing change in the classroom. The description of time, however, involved the time needed to learn how to integrate the new technique as well as the time needed to follow-up on the results of the activity.

All faculty agreed that while theory was important, they would like to see faculty development programs that focused on implementation. Several mentioned that there was a great deal of expertise on campus that could be shared. Recommendations for future workshops included: understanding the adult learner, multi-media in the classroom, contract learning, and using student assistants.

Discussion and Recommendations

The results suggest that faculty development programs designed to improve teaching through the use of principles and concepts of adult education and learning may need to focus more on implementation issues than on familiarizing attendees with the principles and concepts. Of particular interest are the reasons cited by faculty for not using strategies and techniques associated with these principles. The perception that the techniques are not useful or are too difficult to implement needs to be addressed. In designing faculty development initiatives, explanation and demonstration may not be enough. Experiential learning strategies, where modeling and practice, along with opportunities to work with the methods within one's own courses, appear necessary. Faculty in this research emphasized their preference for informal discussions groups, on campus experiential workshops, and mentoring relationships. While attention should be given to faculty's preferred means of learning, it is also apparent that techniques that require application of adult learning strategies, such as active participation, warrant consideration. Gordon and Levinson (1990) found that faculty development was most effective when the faculty learned by the same methods about which they were actually learning. They documented that not only did faculty implement the practices modeled in the course, but that their attitudes regarding teaching and learning had also changed. As is so often the case in professional development venues, such is conferences, meetings and workshops, faculty, even those schooled in adult learning principles, revert to traditional instructional methods. While formal presentations and lecture have their place, they may not be the most effective way to demonstrate adult learning principles and concepts for use and acceptance.

Faculty concern for student motivation and diverse abilities in their classroom, cited as their biggest challenge, appears to be the underlying reason many attended the workshops. However, little connection was made by the faculty between presented strategies and their biggest challenge. A central assumption about adult learning it that a person's readiness to learn is greater when one sees an immediate need to learn and to apply the learning to solve life problems (Knowles, 1980). Faculty development initiatives should take advantage of this "readiness" to learn by making clear the connection between the issues of concern to faculty and the content of the workshops. In designing the professional development events for faculty, theory and concepts need to be illustrated in practical formats for immediate applications to the problems at hand.

It is also important to assess the degree to which faculty reward structures, that is, promotion and retention guidelines, may actually discourage experimentation with new instructional approaches. Much of the literature today (Apps, 1991; Hiemstra, 1991; Meyers & Jones, 1993) focus on the faculty member's responsibility to learn, implement and be successful in incorporating such methods in their teaching. There is little that focuses on the institutional culture and organizational context, and whether it is supportive of such changes. Designers of faculty development and the administrators who provide these opportunities need to go beyond the demonstration of new learning methods and classroom techniques. Linking the administration's goals with the faculty's goals for change and development is crucial. It is recommended that administration articulate its support for implementation and provide reward opportunities for those faculty who initiate the strategies demonstrated.

This study provided a rich pool of data to be used in the planning of subsequent faculty development workshops and seminars. The research also reinforced the need, value and feasibility of conducting on-going research and evaluation of seminars and workshops for program improvement. Too often the "busy administrator" overlooks the link between evaluation and program planning, or uses paper and pencil evaluations, which though adequate, fall far short of providing the rich and extensive information gleaned from this study. The partnership between researchers and the practitioner provided currency to the study and value for both research and practice. This "action research" involved several stakeholders in identifying and solving the problem (Schensul & Schensul, 1992).

Teaching and learning seminars and workshops planned for the Spring 1996 semester will focus on classroom implementation of teaching techniques. Subjects will be chosen that will assist faculty in motivating student learning and addressing the needs of a class with varied academic experience and talent. Research and evaluation of these seminars will continue.

References

Apps, J. W. (1991). Mastering the teaching of adults, Malabar, FL: Krieger.

Brookfield, S. D. (1986). Understanding and facilitating adult learning, San Francisco: Jossey-Bass.

Gordon, G.H., & Levinson, W. (1990). "Attitudes toward learner-centered learning at a faculty development course." Teaching and Learning in Medicine,2, #2, 106-109.

Halpern, D. F., & Associates. (1994). Changing college classrooms: New teaching and learning strategies for an increasingly complex world, San Francisco: Jossey-Bass.

Hiemstra, R. (1991). (Ed.). "Creating environments for effective adult learning", New Directions for Adult and Continuing Education,50, San Francisco: Jossey-Bass.

Houle, C. 0. (1992). The literature of adult education: Bibliographic essay, San Francisco: Jossey-Bass.

Knowles, M. S. (1980), The modern practice of adult education: From pedagogy to andragogy. New York: Cambridge.

Lawler, P. A. (1991). The keys to adult learning: Theory and practical strategies, Philadelphia: Research for Better Schools.

Merriam, S. B., & Cunningham, P. M. (Eds.). (1989). Handbook of adult and continuing education, San Francisco: Jossey-Bass.

Meyers, C., & Jones, T.B. (1993). Promoting active learning: Strategies for the college classroom, San Francisco: Jossey-Bass.

Peters, J. M., & Jarvis, P. (1991). Adult education: Evolution and achievements in a developing field of study, San Francisco: Jossey-Bass.

Schensul, J.J., & Schensul, S.L. (1992).In "Collaborative research: Method of inquiry for social change." In M.D. LeCompte, W.L. Millroy, & J. Preissle (Eds.). The handbook of qualitative research in education, New York: Academic Press, 161-200.

Patricia A. Lawler, Ed.D., Associate Professor, Center for Education; Arlene D. DeCosmo, Ed.D.,Dean, University College; Stephen C. Wilhite, Ph.D., Dean, School of Human Service Professions; Widener University, One University Place, Chester, PA 19013

Presented at the Eastern Adult, Continuing and Distance Education Conference, Penn State University, University Park, PA, October 24-25, 1996. Previously presented at 37th Annual Adult Education Research Conference, University of South Florida, Tampa, FL, May 16-19, 1996.

DEVELOPMENT OF A COMPUTER-BASED TELECOMMUNICATIONS NETWORK FOR DIABETES EDUCATORS IN WEST VIRGINIA

Deborah Lewis, EdD, RNC, CDE
Assistant Professor, West Virginia University School of Nursing

Linda Jacknowitz, MLS, MPA
Director, West Virginia CONSULT

ABSTRACT

"Diabetes Educators On-Line," a demonstration project was developed to provide access to a computer-based health information network for diabetes educators in West Virginia. West Virginia CONSULT, an outreach program of West Virginia University, was used as the telecommunications gateway. The goals for this project were designed to enhance access to current resources, and to provide a system of communication, and mentoring for rural diabetes educators. Currently twenty-seven diabetes educators have received computer training, provided at regional sites across the state. The educators have access to WV CONSULT and the National Library of Medicine's databases via Grateful Med. Overall system usage was lower than initially expected. While availability of computers was not an obstacle, primary barriers to use were time, lack of modems and Internet access. Participants also noted that they generally communicate with colleagues on-site and do not regularly use sources outside their institutions for consultation. In addition, most participants were from urban areas of the state where resources may be more accessible.

BACKGROUND

Diabetes is a serious health problem for WV and the nation. It is the sixth leading cause of death accounting for more than $20 billion in health care costs annually. These health care costs primarily result from a failure to control the complications of the disease. Diabetes remains the primary cause of adult blindness, the leading cause of nontraumatic leg or foot amputations, and is responsible for 25% of all newly diagnosed cases of end-stage renal disease. (ADA, 1993; CDC, 1993; WVDHHR, 1992; WVDHHR, 1994).

Education is key to maintaining good health and preventing the onset of devastating complications. Having diabetes means that the patient and their family must learn as much as possible so that they can better control the disease. Diabetes patient education is an important component of the health care management plan. In 1994 the American Diabetes Association released results of a ten-year longitudinal study that addressed the impact of interventions on outcomes for persons with diabetes. This study demonstrated the importance of education in preventing the onset of the devastating and costly complications of this disease (ADA, 1993; Nathan, et al., 1993; PDA, 1993; Santiago, 1993).

Diabetes educators are health care professionals who teach persons with diabetes and their families the skills needed to manage their condition successfully. Most diabetes educators are nurses or dieticians with specialized knowledge and experience in diabetes education and care. These educators usually work in hospital or outpatient clinic settings. While the incidence of diabetes is high in West Virginia, the number of Certified Diabetes Educators (CDEs) remains low. There is approximately one CDE for every 2000 patients with diabetes practicing in the state. Development of programs to support the education and training of qualified personnel to provide diabetes education is a priority for both the WV Bureau of Public Health, Diabetes Control Project (WVBPH-DCP) and the West Virginia Association of Diabetes Educators (WVADE).

In 1993, WVADE, in cooperation with the WVBPH-DCP, established an ongoing program to address the educational needs of beginning diabetes educators in rural under served areas of West Virginia. To date, seventy-two new diabetes educators in eighteen rural counties in West Virginia have attended the program. This program has been very successful in providing initial training; however, because of West Virginia's rural nature, continuing access to mentoring opportunities and information resources has been a challenge.

To better understand West Virginia diabetes educator needs, a 1994 survey was mailed to all members of WVADE, and to the WVADE regional training workshop attendees (N=88). Survey results suggested the development of a statewide electronic link for diabetes educators could help to meet their information resource and communication needs. Fifty-eight individuals responded. Thirty-nine percent of the group reported having computer access, at either their home or workplace. Forty-one percent of those with access to computers stated that they conducted literature searches at least once per month, and 67% stated that they would use on-line diabetes related information resources if they were available. Of all individuals surveyed, 65% believed that the development of a statewide electronic link for diabetes educators should be a priority. Funding for the development of the Diabetes Educators On-Line program was obtained through a West Virginia University Public Service Grant, with additional funding coming from the WVBPH-DCP.

Diabetes Educators On-Line was conceived as a way to give beginning educators mentoring opportunities and access to information resources. The goals for the demonstration project were:

1. To provide timely access to current, relevant resources for the state's diabetes educators.
2. To enhance communication among the state's diabetes educators.
3. To provide professional support for West Virginia's new diabetes educators via a computer based mentoring program.

These aims were consistent with the diabetes-related health goals West Virginia has adopted for the year 2000, which include a goal to identify the need to "establish a statewide communication network, utilizing new and existing channels of communication, to provide information related to diabetes control" (WVDHHR, 1991).

The Diabetes Educator On-Line Project attempted to promote enhanced communication for Diabetes Educators by linking them to the resources of the statewide West Virginia CONSULT health information network. CONSULTS' resources include electronic mail, an Internet gateway and various biomedical databases. CONSULTS' resources were proposed to enable diabetes educators to communicate with colleagues who share similar concerns and to provide an ongoing way to mentor beginning educators.

West Virginia CONSULT is an outreach program of the Robert C. Byrd Health Sciences Center of West Virginia University. Its mission is to enhance information and communication access for health professionals, especially those practicing in the rural environment. In 1989 CONSULT was the recipient of a major grant from the National Library of Medicine (NLM). Currently CONSULT has registered users at more than eighty sites around the state. CONSULT is a gateway to several already established information resources, such as the MEDLARS databases at the National Library of Medicine. CONSULT facilitates access to them through the user friendly GRATEFUL MED software and facilitates automated interlibrary loan services through NLM's DOCLINE and Loansome Doc. CONSULT also provides access to several other proprietary information resources, including electronic mail, drug information services, special interest groups, and continuing education links.

To meet the goals of the Diabetes Educators On-Line project, the following CONSULT services were thought to be particularly relevant:

Special Interest Groups (SIG) are computer-based discussion groups that electronically link colleagues who share professional concerns and interests. As part of the Diabetes Educator's On-Line project a moderated diabetes SIG was setup.

PERL (Patient Education Resource List) is a searchable database of juried patient education references.

CE LINK is a searchable, continuing education calendar offering access to information on education programs across the country. Nurses and dietitians are among the target audiences.

FLASH provides automatic time critical news.

MAILMAN is an electronic mail package developed by the Department of Veterans Affairs.

GRATEFUL MED is a cost effective, user-friendly search engine that searches the biomedical literature via MEDLINE and twenty other complex NLM databases. This software provides online abstracts for more than 75% of the MEDLINE citations and includes Loansome Doc, an electronic interlibrary loan (ILL) tool for individual end users.

DOCLINE is a powerful, automated tool that enhances institutional ILL.

MOUNTAINLYNX WVU Library's automated library system, provides access to online catalogs and selected databases at West Virginia and other college and university libraries.

PROGRAM DEVELOPMENT

WVADE members and all persons who had attended a WVADE training workshop were invited to participate in the Diabetes Educators On-Line project. Eighty-eight brochures announcing the program were mailed and twenty-seven responses were received. Regional computer training workshops were scheduled at four sites across West Virginia.

TRAINING

Training concentrated on teaching participants to use MAILMAN and the DIABETES SIG for communication, and also how to use GRATEFUL MED to search MEDLINE. Brief instruction was also provided in the use of the other CONSULT Basic Services. All of the training relied heavily upon existing, validated curricula and support materials. To reduce travel for attendees, training took place at four regional sites across West Virginia. Twenty-seven diabetes educators attended the initial workshops. In addition, two one-half day Internet Access workshops were also held later in the project. Attendees completed workshop evaluations at the conclusion of all training sessions.

The authors and CONSULT's technical support staff provided ongoing training and technical support. In addition, local support was available at many of the diabetes educators worksites from personnel familiar with the software applications. At mid-project, a graduate student assistant, who is currently pursuing a combined Nursing and Computer Science masters degree, was hired to provide additional technical support.

ACCESS

Following the initial training, CONSULT's electronic mail service, was available to project participants for sending and receiving general messages as well as diabetes related mentoring. The text-based electronic mail enabled them to communicate with anyone with an Internet address. Additionally, it was anticipated that the moderated DIABETES Special Interest Group (SIG) would serve as a forum for more general diabetes-related discussions and questions. An advanced practice nurse, with a doctorate in educational technology and many years of experience in diabetes education and patient care, served as the DIABETES SIG moderator.

Individuals were encouraged to access CONSULT at their practice sites and/or homes. Access to CONSULT is free to the state's health professionals, and the network absorbs the telecommunication charges for clients in fifty-three of the state's fifty-five counties. Availability of existing equipment able to access CONSULT was high at sites where targeted diabetes educators' worked; in addition most of the 1994 survey respondents lived in communities covered by CONSULT's free telecommunications link. Grateful Med software was provided for all workshop participants free of charge. Participants were also offered modems.

METHODOLOGY

EVALUATIONS

Four initial training sessions were held at regional sites. The attendees completed post-workshop evaluations. Four months after the initial training, the first of two program assessment questionnaires were mailed to all workshop attendees. Results from those surveys suggested respondents would benefit from additional technical assistance and a graduate assistant was hired to provide this support. Telephone contacts were attempted with all program participants to offer support and assistance. The final program assessment questionnaire was mailed eight months after the initial training took place. A follow-up telephone interview came immediately after the final questionnaires were analyzed.

INSTRUMENTATION

A standardized five point Likert-type evaluation tool (1=poor to 5=excellent) measured satisfaction and effectiveness of the training component.

Program assessment measures included mid-project and end-of-project mail-in questionnaires, both of which were followed by telephone surveys. Both Program Assessment questionnaires measured usage, satisfaction, and barriers to use. The final Program Assessment questionnaire included open-ended questions addressing other barriers to use and additional satisfaction issues.

The mid-project telephone survey was open ended and was intended to identify participants' needs for support, while the final telephone survey was a structured interview that addressed more in-depth issues relating to other consultation and collaboration resources. All program assessment instruments were developed by the authors and were reviewed by persons with expertise in the field of diabetes education and instructional technology to provide content and construct validity.

RESULTS

TRAINING

When asked whether the initial training (WV CONSULT and Grateful Med) had been worth the time commitment, the mean response was 4.44; the same question drew a 4.8 mean response for the later Internet training. When asked to judge their relative knowledge pre and post-training the mean response for the initial training went from 2.24 to 3.76, while those who attended the Internet training said their knowledge increased from 1.8 to 4.0.

USAGE

At the conclusion of the project seventy percent of the participants reported having a personal computer at home; eighty-five percent reported having one at work. Mid-project and end of project surveys revealed a change in WV CONSULT usage from fifty to 65%. The group overwhelmingly identified print material and colleagues at work as their primary sources of health care information. In addition, the educators who chose to participate in this project were from more urban areas of WV and they use the telephone as their primary mode of communication with colleagues outside work. The most commonly identified barriers to the use of WV CONSULT were: lack of time, and lack of a modem or Internet access (Table 1).

The final questionnaire contained two open-ended questions. The first question asked about any additional barriers and many respondents said again that time was the biggest barrier, several also noted that change in work responsibilities had affected their available time. Several respondents stated they were only now connecting to the Internet in their home communities while others cited difficulty with the text-based system. When asked what could have been done to make the program more useful many responded, "nothing," and stated that "consultation was available and helpful," a few noted that they needed "on-site help at home to setup modems and connections."

Table 1
Barriers to using CONSULT **N=20**

Barriers	**n**	**%**
Don't have time	11	55
Don't have a modem or Internet access	9	45
Don't have access to a computer	4	20
Using another electronic communication method	4	20
Don't like system offered	2	10
Difficulty connecting	2	10
Not enough users to generate interest	2	10
Need more technical support	2	10

WORLD WIDE WEB SITE DEVELOPMENT

Final evaluation results and the recent availability of a CONSULT World Wide Web site prompted the development and scheduling of two one-half day Internet Access workshops. Invitations to the Internet workshops were mailed to all diabetes educators in WV; fifteen attended. A Diabetes Educators On-Line, web page has been developed as a follow-up to this project. The web page is linked to the CONSULT Home Page and other relevant information sources for diabetes education. The web site also hosts a moderated discussion group that is available to all diabetes educators with Internet access.

DISCUSSION

Final survey outcomes indicated a very positive response to the training and technical support provided. However, this project demonstrates that training satisfaction is not always a predictor of potential use. While the final four months of the project demonstrated a 15 percent increase in use, overall usage remained lower than anticipated. The lower than expected usage prompted the authors to investigate possible causes for the results. Clearly, the most reported limiting factor was time to use the system. Modem and Internet access was also noted to be a barrier, although the project had offered to supply modems to those who needed them. In addition, access to WV CONSULT was available in their communities and did not require Internet connectivity. Further, this was a self-selected group that consisted primarily of more urban diabetes educators, employed in multidiscipinary diabetes management practices, who reported that their collaborative and information needs were met on-site through interaction with colleagues or use of print information sources.

CONCLUSIONS

This project provided participants with the means to access current, relevant electronic resources. In addition, training has helped raise awareness about various electronic resources and communication options. Participants' response to the Internet Workshops seems to suggest continued interest in using electronic resources, particularly those on the World Wide Web. While only two respondents reported that they needed additional technical support, a number of the open-ended comments lead the authors to conclude that hands-on technical support was needed to help install modems and connect home computers. The increasing availability of local Internet service providers may make this type of support more readily available and lead to increased use. While availability of computers was not an issue for respondents, apparently system access was.

The fact that so many respondents referred to a lack of Internet access is puzzling. This leads the authors to speculate either that participants may prefer a graphical interface or that they did not understand that WV CONSULT was available without an Internet connection. It is hoped that the web site will serve as one mechanism to provide information and communication resources to rural educators who are only now getting Internet connectivity. Future plans include ongoing support for current users and development of strategies to promote electronic outreach to rural diabetes educators.

REFERENCES

American Diabetes Association. (1993). Implications of the diabetes control and complications trial. Diabetes Care, 16, 1517-1520.

American Diabetes Association. (1993). Diabetes Vital Statistics, 1993.

Centers for Disease Control. (1993). Diabetes Surveillance, 1993. Atlanta, GA, U.S. Department of Health and Human Services, Public Health Service, 1993.

Nathan, D.M. et al. (1993). The effect of intensive treatment of diabetes on the progress of long-term complications in insulin dependent diabetes mellitus, The diabetes control and complications trial research group. The New England Journal of Medicine, 329, 979-986.

Pennsylvania Diabetes Academy. (1993) Upgrading diabetes therapy. Harrisburg, PA.

Santiago, J. V. (1993). Perspectives in diabetes: Lessons from the diabetes control and complications trial. Diabetes, 42, 1549-1554.

West Virginia Department of Health and Human Resources. (1991, October). Healthy people 2000: West Virginia objectives. Charleston, WV: Dept. of Health and Human Resources.

West Virginia Department of Health and Human Resources. (1992, January). West Virginia Vital Statistics 1992. Charleston, WV: Dept. of Health and Human Resources.

West Virginia Department of Health and Human Resources. (1994, October). The burden of diabetes in West Virginia. Charleston, WV: Dept. of Health and Human Resources.

Correspondence to:
Dr. Deborah Lewis, West Virginia University School of Nursing
6404 Health Science Center South, PO Box 9610, Morgantown, WV 26506

This project was funded by a WVU Public Service Grant and the WV Bureau of Public Health-Diabetes Control Project

Presented at the Eastern Adult, Continuing and Distance Education Research Conference, Penn State University, University Park, PA, October 24-26, 1996.

WHAT IS AND WHAT OUGHT TO BE?
USING THE DELPHI TO DETERMINE FUTURE DIRECTIONS

Barbara G. Ludwig
Associate Professor, Ohio State University Extension

ABSTRACT

Frequently educators, businesses and organizations are faced with the problem of predicting or forecasting future events and relationships in order to make appropriate and reasonable plans or changes. Several methods exist for forecasting, one of which is called the Delphi technique. "In general terms, the Delphi could assist an investigator in assessing the what is and what should be with regard to organizational conditions, goals and objectives" (Sutphin, 1981, p. 41). The Delphi technique was developed to get a reliable consensus of opinion among people about a particular topic. Named after the Greek oracle, who was known for predicting events, the Delphi technique is a methodology developed to utilize the subjective judgements of experts. The case study presented in the paper is designed to provide educators insights into when it is appropriate to use the Delphi, selection of panel members and considerations in the effective use of the Delphi methodology.

INTRODUCTION

"Delphi operates on the principle that several heads are better than one in making subjective conjectures about the future ... and that experts will make conjectures based upon rational judgement rather than merely guessing, and will separate hope from likelihood in the process". (Weaver, 1971, p. 268)

The Delphi technique had its beginnings in the 1950's at the Rand Corporation with a team of researchers by the names of Dalkey and Helmer. Early examples of use of the Delphi included targeting dates of breakthroughs in scientific areas, particularly related to space technology, nuclear weapons and as one researcher suggested with a note of humor: combining individuals estimates of how to bet at the horse races to the advantage of all. It is recognized as a method for obtaining a consensus of opinion about a matter not subject to precise quantification (Ulschak, 1983; Johnson, Miller, Miller & Summers, 1987; Dalkey & Helmer, 1963). Three traditional uses of the Delphi include: forecasting, policy investigations and goal setting.

To gain an understanding of the characteristics of the Delphi, a case is presented where the Delphi research technique was selected. Linstone and Turoff (1975) outlined situations where the use of Delphi was indicated. Situations included: (1) precise analytical methods were not suitable for studying the problem, but subjective judgment on a collective basis could provide beneficial information relative to the problem; (2) time and cost limited the ability to convene group meetings involving the individuals needed to address the problem; (3) the individuals needed to contribute to examination of a broad and complex problem represented different backgrounds with respect to experience or expertise; (4) anonymity assured that disagreements among individuals which might result in a face-to-face interaction could be refereed; and (5) domination by a group or individual was avoided. All of these situations were evident in the problem to be addressed. Likewise, many of these same situations are faced by educational practitioners and researchers in identifying future programming priorities for their clientele.

METHODOLOGY

The design of the study was descriptive-survey research. The process utilized individual written responses, as opposed to bringing individuals together for oral discussion. This becomes an advantage when a group of persons are not in close proximity. The methodology is characterized by multiple iterations or feedback to participants designed to accomplish convergence of opinion. The participants do not know who is saying what and were not swayed by the persona of other participants (Jones & Twiss, 1978; Dalkey, Rourke, Lewis, Snyder, 1972; Linstone & Turoff, 1975).

The methodology section has been organized into sub-sections reflecting methodological activities used to accomplish the objectives of the study. The sub-sections include: (1) panel member selection, (2) instrumentation, (3) data collection, and (4) data analysis.

PANEL SELECTION

The target population for the study was relatively homogeneous and consisted of positional leaders and informed respondents. A total of 15 individuals were identified to comprise a panel of experts who were identified as the Delphi Panel. The Delphi Panel was treated as a population. As reported earlier, Delphi operates on the principle that several heads are better than one in making subjective conjectures about the future. The majority of Delphi studies have used between 15-20 respondents. The panel size was generally determined by the number of respondents required to constitute a representative pooling of judgements and the information processing capability of the researcher (Ulschak, 1983; Delbecq, Van de Ven, Gustafson, 1975).

Qualifications of desirable Delphi Panel members for the study should be identified and a nomination process used to select specific individuals. The criteria used were: (1) national/international reputation; (2) familiarity with the topic; (3) has conducted research, written or lectured on the topic; (4) was considered to have a deep interest in the problem and important knowledge or experience to share. A review panel consisting of three faculty members with extensive knowledge of the topic was used to assist the researcher in the selection process.

The 15 individuals comprising the Delphi Panel were well known and respected for their contributions to Extension or land-grant colleges or universities in the area of internationalization. Delphi should not be used with groups that have difficulty in reading or expressing themselves in written communication (Ulschak, 1983; Delbecq et al., 1975, Johnson, et al., 1987; Summers, 1987). Delphi also requires participants to be highly self-motivated. The quality of responses was influenced by the interest, knowledge and commitment of the participants.

INSTRUMENTATION

The study used a three-round, modified Delphi technique to explore and describe the characteristics of an internationalized state Extension system. The Delphi Panel was asked to identify the degree to which they believed each item on the instrument contributed to the internationalization of a state university Extension system. A seven point Likert-type scale was used with 0 indicating "no importance", 1 indicating "slight importance", 2 indicating "limited importance", 3 indicating "moderate importance", 4 indicating moderately high importance", 5 indicating "high importance" and 6 indicating "critical importance". Participants were also encouraged to write comments explaining their ratings or add new statements. Delphi Panel responses were incorporated in successive instruments.

Specialized instruments were developed following a review of the literature to clarify the concepts being studied and suitability of the modified Delphi research technique to assess these concepts.

In the modified Delphi, position statements were used in place of an unstructured questionnaire on the first round. Three rounds were planned and three instruments were developed. The review of literature conducted by the researcher and that of Cyphert and Gant (1971) and Altschuld (1993) indicated that not enough was gained after three rounds to warrant the cost of additional rounds.

The initial instrument contained 39 position statements derived from the literature and structured interviews with international experts. Linstone and Turoff (1975) reviewed research on Delphi statements. The authors recommended statements should have a length of 20-25 words. The authors found a distinct relationship between the number of words used and level of consensus reached. Mid-length statements (20-25 words) produced widest agreement in interpretation and highest consensus. Face and content validity of the initial instrument were assured through the used of a content validity panel. Given the nature of the Delphi technique, additional types of validity were not appropriate for the instrument (Hughes, 1993; Dalkey, et al., 1972).

Reliability, a benchmark criterion for assessing the consistency of the instrument in measuring accurately whatever it sets out to measure, cannot be determined by conventional means in a Delphi study. Reliability-estimation procedures look at stability in measurement over time or across forms. Changing responses from one round to the next is encouraged as the Delphi Panel moves toward consensus and the instrument is modified in each round based on panel members' input. Dalkey (1969) reported an increase in reliability of group responses with increasing group size. Reliability with a correlation coefficient approaching .9 was found with a group size of 13. Coefficients of stability were also deemed inappropriate. No attempt is made to sum responses across items or advance that each item measures the same thing, as would occur in the technique used for establishing indices of internal consistency reliability.

During Round II, based on suggestions from the Delphi Panel, 12 new items were added and 9 items were reworded. The instruments used in the second and third rounds contained items on which a predetermined level of consensus was not achieved during the previous round. It is important to note that in the Delphi technique, the development and administration of questionnaires is interconnected. Further information on the instrument development process is found in the section on Analysis of Data and Presentation of Feedback. Iterations, or feedback provided to Delphi Panel members is viewed as a series of rounds; in each round every participant worked through a questionnaire which was returned to the researcher who collected, edited and returned to every participant a statement of the position of the whole group and the participant's own position. A summation of comments made each
participants aware of the range of opinions and reasons underlying those opinions. Throughout the process, Delphi Panel members' identity and their comments remained anonymous.

DATA COLLECTION

A minimum time of 45 days for administration of the Delphi study was recommended (Delbecq et al., 1975; Ulschak, 1983). Delbecq recommended allowing two weeks for participants to respond to each round. A drawback to Delphi was that the questionnaire method may slow the process greatly as several days or weeks pass between rounds. Participant motivation and interest can decline as a result. A positive aspect of the Delphi method was the minimization of time and effort on the part of the participants. A thirty-minute completion time was recommended for questionnaires (Delbecq et
al., 1975).

The Delphi instruments were mailed to the Delphi Panel using regular U.S. mail or air mail to international locations. The mail packet consisted of the instrument, an individually addressed cover letter, and a self-addressed stamped return envelop. Each mailed iteration of the instrument utilized a bright yellow envelop which made it easily identifiable in the panel member's mail. A special transmittal sheet with humorous graphics was designed for fax communication with respondents. Nonrespondents on each round were contacted by a facsimile transcribed letter five days after the date due. If no response was received within ten days after the due date, the nonrespondent was contacted by telephone. Thirteen of the fifteen respondents were scheduled to be out of the country during the course of the study, so some flexibility in data collection procedures was required. The data collection process took three months to complete.

Personal contacts with each panel member and small incentives to panel members and administrative secretaries were used to encourage response. Letters of appreciation were mailed or transmitted by facsimile machine following each round to maintain interest and confirm the arrival date for the next instrument. The literature revealed that participant loss of interest because of replicated measures is one of the drawbacks to the Delphi technique.

ANALYSIS OF DATA and PRESENTATION OF FEEDBACK

Descriptive statistics were calculated for each round. The computer program SPSS was used for data analysis. For each round, items on which consensus was reached were identified. Consensus on an item was considered to have been reached when 80% of the ratings fell within two categories on a seven-point scale.

No consensus was reached on items during Round I. Twelve additional statements were added based on content analysis of suggestions made by the Delphi Panel. Two types of feedback were used in Instrument II. The first was statistical feedback in the form of group response using a frequency table for each statement and the individual's own response on each statement. Neither mean nor median was reported as a descriptive parameter. The dispersion of scores indicated these parameters could be misleading. In addition to statistical feedback. All comments by the Delphi Panel for each
statement in Round I were anonymously reported.

Instrument III was developed based on responses to the Round II instrument and suggestions made by the Delphi Panel. The Round III instrument contained 42 items on which consensus was not achieved in Round II. Consensus was achieved on nine items. Two types of feedback were used in
Round III. The first was statistical feedback in the form of group response using a frequency table for each statement and the individual's own response on each statement. The mode was identified (Ulschak, 1983) as well. In addition to statistical feedback, all comments by the Delphi Panel for each
statement in Round II were anonymously reported. In Round III, the Delphi Panel was asked to review each statement, re-evaluate their position on statements where consensus was not reached and rerate using the same seven point Likert-type scale, where 0 indicates "no importance" and 6 indicates "critical importance". On those items where the final rating varied two or more points from the mode, clarification was requested on the rationale for the rating.

Presentation of feedback is central to the operation of the Delphi. Feedback to participants has a tendency to move respondents toward consensus. Dalkey and Helmer (1963) studied the effects of verbal feedback alone against those of statistical feedback alone and found that the presentation of verbal feedback by itself was not satisfactory in terms of reaching consensus is the Delphi. Statistical feedback without any verbal explanations was superior. The study showed, however, that given statistical feedback, groups that were also provided with "relevant facts" produced better results than groups that were not presented with a combination. Altschuld (1993) cautioned that wording and how results are fed back to the panel can mold consensus.

Following Round III, statistics of central tendency and variability were calculated for all items on which consensus had been reached. The mean was used to describe the level of importance of the item to an internationalized state Extension system as determined by consensus of the Delphi Panel.

FINDINGS

The results of the study represent the collective opinion of the experts participating in the Delphi Panel at a single point in time and cannot be construed to be representative of any other population or situation. Fourteen of the 15 participants responded to each round, a 93% response rate. Fifty one items were considered during the three rounds of the Delphi. Consensus was achieved on 38 items which were identified as having moderately high importance to critical importance for the internationalization of a state university Extension system. Comments made by the Delphi Panel during each round and reported anonymously provided additional information to describe the ratings and clarify issues. Three hundred and sixteen comments were received.

Considering the strong tendency in the Delphi procedure for opinion to centralize, resistance in the form of nonconsensual distributions was viewed with special interest (Linstone & Turoff, 1975). Consensus was not achieved on thirteen items after three rounds. Delphi Panel comments on all rounds were reviewed and utilized to further describe the panelists' reaction to each item where consensus was not achieved.

SIGNIFICANCE

Educators share a challenge to reinvent their institutions and approaches to education. Their goal: to become more relevant and effective in meeting the needs of internal and external clientele. America 2000 targeted the need for an educated citizenry who have the knowledge and skills to compete in a global economy. The report stated "all our people, not just a few, must be able to think for a living, adapt to changing environments, and to understand the world around them...we must realize that education is a lifelong pursuit" (U.S. Department of Education, 1991, p. 35). Accomplishing these goals will involve changes in the current system and a need for predicting or forecasting future events and relationships in order to make appropriate and reasonable plans.

The focus of the paper has been on the Delphi methodology. Through the example of a single case study, educators and practitioners can begin to visualize how the Delphi can be utilized to identify "what should be" related to programming goals. Delphi is recognized for motivating innovative thinking and has traditionally been used in forecasting, policy investigations and goal setting . The Delphi technique has been the subject of studies comparing its results with other methods. Ulschak (1983) noted that many studies confirmed the prevailing claim of Delphi proponents that the more people were encouraged to put forth their ideas, the better the final answer produced by the group. The Delphi was consistently favored with respect to the appropriate use of time. Experiments carried out by Dalkey at Rand (1967, 1969) and Campbell at the University of California (1966) found the Delphi process more effective than interacting meetings. Van de Ven (Delbecq, et at., 1975) subjected the Nominal Group Technique (NGT) and Delphi techniques to a formal experimental comparison on an applied problem. Comparisons noted that the NGT technique and Delphi processes generated almost twice as many ideas as interacting groups.

Often groups faced with the need to conduct futuring activities find themselves struggling with the difficulty of finding agreeable meeting times, skilled facilitators and a limited ability to involve participants who live at a distance. The Delphi provides an alternative method to gather information and reach consensus. With the increasing use of electronic mail, the data collection time could be minimized as panel members provide ratings and comments by typing responses into their personal computer hooked to a modem. The Delphi method is known for stimulating creative thinking and generating new ideas. The items where consensus was achieved by the panel of experts could be shared with larger groups through either face-to-face or electronic discussion. Or to further assess the relevance of the outcome of the Delphi process, survey instruments could be developed to determine level of agreement and implementation strategies. Kaufman and Stone (1983) suggested putting problems into the context of what is and what should be when dealing with organizations. Delphi is a tool and a group process for reaching consensus and well adapted to identifying what ought to be. Many of the problems and issues faced by people and educational organizations cannot be researched or resolved by precise analytical methods, but subjective judgement on a collective basis can provide beneficial information relative to the problem.

REFERENCES

Altschuld, J. W. (1993). Delphi technique. Lecture, evaluation methods: Principles of needs assessment II. The Ohio State University, Columbus, Ohio.

Campbell, R. M. (1966). A methodological study of the utilization of experts in business forecasting. Unpublished dissertation, University of California at Los Angeles.

Cyphert, F. R. & Gant, W. L. (1971). The Delphi Technique: A Case Study. Phi Delta Kappan, 52, 272-273.

Dalkey, N. C. (1967). Delphi (Research Rep. P-3704). Santa Monica, CA: Rand Corporation.

Dalkey, N. C. (1969). The Delphi method: An experimental study of group opinion (Research Rep. RM-5888-PR). Santa Monica, CA: Rand Corporation.

Dalkey, N. C. & Helmer, O. (1963, April). An experimental application of the delphi method to the user of experts. Management science, 9, 3, pp. 458-67.

Dalkey, N. C. & Rourke, D. L., Lewis, R., Snyder, D. (1972). Studies in the quality of life. Lexington, Massachusetts: Lexington Books.

Delbecq, A. L., Van de Ven, A. H., & Gustafson, D. H. (1975). Group techniques for program planning. Glenview, Illinois: Scott, Foresman and Company.

Hughes, Matthew. (1993). Career-oriented program activities and learning experiences that promote achievement of middle-grade education goals. Unpublished doctoral dissertation, The Ohio State University, Columbus, Ohio.

Johnson, D. E., Miller, L. R., Miller, L. C., & Summers, G. F. (1987). Needs assessment theory and methods. Ames: Iowa State University Press. Pp. 10-113.

Jones, H., & Twiss, B. C. (1978). Forecasting technology for planning decisions. London: Macmillan Press Ltd.

Kaufman R. & Stone, B. (1983). Planning for organizational success. New York: Wiley and Sons.

Linstone, H. A. & Turoff, M. (1975). The Delphi method: Techniques and applications. Reading, MA: Addison Wesley Publishing.

Sutphin, H. D. (1981). Positions held by teachers, teacher educators, and state supervisors about selected national issues in agricultural education. Unpublished doctoral dissertation, The Ohio State University, Columbus, Ohio.

Ulschak, F. L. (1983). Human resource development: The theory and practice of need assessment. Reston, Virginia: Reston Publishing Company, Inc. Pp. 111-131.

U.S. Department of Education (1991). America 2000. Washington D.C.

Weaver, W. T. (1971). The delphi forecasting method. Phi Delta Kappan, 52 (5), 267-273.

Barbara G. Ludwig, Associate Professor and District Director, Ohio State University Extension. Northeast District Extension, 1680 Madison Avenue, Wooster, Ohio.

Presented at the Eastern Adult, Continuing and Distance Education Research Conference, Penn State University, University Park, PA. October 24-26, 1996.

When Bonds Are Broken

David A. Manzo   Manuel A. Gonzalez

Abstract

The Adult Literacy Department of Northampton Community College designed an intergenerational family literacy program for incarcerated fathers at Northampton County Prison. This was a three year project that proposed to enhance the educational programming and social service intervention for the families of incarcerated fathers to affect change in the literacy climate of the family of the prisoner. The object of the program was to break the intergenerational patterns of literacy problems.

Instruction was provided in Adult Basic Education; English as a Second Language; and parenting areas of interpersonal communicating, self-esteem, value education and life skills. There were also opportunities for fathers and children to interact. Social services linkage for families of the incarcerated men were facilitated by prison and parole officials.

The participants were pre-tested using BEST and TABE instruments. Post-tests showed modest gains. More important, however, is that this program indicated that a holistic approach (i.e. education, family, social services, etc.) to literacy education proved to be the most effective way to treat intergenerational family literacy problems.

Introduction

Family Literacy

In 1994 the Educational Testing Service released the results on the state of literacy in Pennsylvania prisons. Results were reported on five skill levels, based on a sample of 1626 adults. At skill level I individuals were able to perform simple task such as signing their name or locating the time and place of a meeting. Adults identified at level I could not calculate the cost of a purchase, fill out a form, or locate destinations on a map. This accounted for 22% of the sample population. Adults identified at level II accounted for an additional 28% of respondents. These adults could not write a brief letter or calculate miles per gallon using a chart. One half of all respondents fell into categories, I and II of literacy. While in the general public two thirds fall into the top three categories, the study found that the prison population was significantly deficient in prose literacy (e.g. articles), document literacy (e.g. maps, schedules), and quantitative literacy (e.g. checkbooks).

Family literacy proponents stress intergenerational influences in the development of literacy (Anderson, 1985). Reading aloud to children is identified as the single most important factor in developing good literacy habits. Children are influenced by example (Nickse, 1988), and this extends to reading habits (Nickse, 1988).

In case where families are separated, socialization becomes an issue. One of the primary needs of incarcerated individuals is appropriate socialization skills. This program attempted to provide experiences for good nurturing skills, and to promote appropriate social skills in the children. Lanier and Fisher (1990) stated that parental training increased knowledge about parenting skills and responsibilities. This re-union of the fragile and in many cases broken bonds between father, children, and family stimulus for life-long learning which can help break the cycle of intergenerational illiteracy.

This family literacy program, entitled "When Bonds are Broken", was conceived as a three year program. The years of the program covered 1991-1994. The program proposed to provide educational and social service intervention to incarcerated fathers and their families in an attempt to influence intergenerational patterns of family literacy related problems.

A holistic approach to family literacy was used because of the undeniable links among parents as educators (Berger, 1991), children and community. It is suggested that a child's academic performance is improved when there is parental involvement (Berger, 1991). Other studies support the conclusion that successful academic results of children can be characterized by home environments, regardless of socioeconomic status, where a wide range and frequency of every day life. Additionally, family literacy proponents stress intergenerational influence in the development of literacy (Anderson, 1985).

Population Characteristics

Over the course of the program 49 fathers, 101 children, and 52 families were served. The average age of fathers was 27.5 with a range of 18-48. The average amount of education was 9.4 years. Forty-seven of 49 fathers were high school dropouts, sever were Caucasian, 11 were African-American, and 31 were Hispanic.

The average entry reading level measured by the TABE, was 5.1 with a range from 0 - 8.5 years. The average exit reading level was 6.7 with a range .5 to 12 years. The fathers were pre-tested using the TABE or BEST. Instruction was provided in 50 hour blocks, with a total of 200 hours of instruction per year.

Parenting skills were provided in six hours of instruction per year, with two hours of father-child contact per week. An additional hour of literacy instruction was provided to the family member while the children were visiting fathers.

Problem

Literacy is seen as an intergenerational problem. Once patterns are established they are very difficult to break. "When Bonds are Broken" attempted to break those patterns of literacy by providing a holistic approach to literacy.

This meant involving all members of the family, and also all relevant social service agency personnel, education providers, and prison officials.

Procedures

Fathers/Students were assessed at the time of acceptance into "Bonds". Individual files included notes from student interviews on educational experience, job training experiences, family experiences, and counseling needs. Writing samples (letters, journal entries, reports) were included, along with pre-test scores of either TABE or BEST oral written. Psychological evaluation and Michigan Multiphase Personality Inventory (MMPI) were completed when deemed appropriate by prison treatment staff. The family liaison worker interviewed the family of the fathers/students and tested them for literacy level using the same tests administered to the incarcerated father.

Basic education instruction was provided in fifty hour modules, based on competencies identified in the pre-test. A variety of instructional modalities were employed. Individualized instruction was provided by tutors.

A workshop format allowed fathers to communicate on a weekly basis with their children , using letters, drawings, games, audio-cassettes. Parenting instruction was provided to other family members while the children were visiting with the fathers. The family liaison worker visited each home to assist in the communication among father, child, family person, and education officials. A basic education class was created for parolees in order to "bridge" the transition to re-integration into the community, to facilitate the educational changes initiated in prison.

Findings, Issues, and Conclusions

Findings

This program found that a holistic individual approach is essential for this high risk population. Narrow applications of segmented services were seldom effective for the individual or the family. As limited as it was for residents in this program, a single point of contact for the residents and their families resulted in a more coordinated and holistic approach to the multitude of attitudinal and behavioral problems that engulfed many of these families. Most of the fathers/students had little support from their families in the community. Bonds had been broken with their children and in many cases with the mothers of the children. Bonds had also been broken with their own primary families. Most of the fathers and families were overwhelmed with the basic struggle to survive with limited financial resources, and more dramatically , limited personal skills including educational and job skill literacy. Most felt powerless to initiate change and had experienced negative reactions when they had attempted to make contact with a variety of social agencies. Few had the skills, patience and persistence to acquire services that would offer opportunities for support and change. The majority of the agencies focused on a single problem. The schools frequently "wrote off" many of these children and had little contact with the families as they did not contact the schools. Few of the families had any relationship with local church groups for spiritual and physical support. Even registering for classes required a "road map" for where to go, who to see first or second or third, and counseling regarding the appropriate courses, etc. Child care to enable many of the caretakers to participate in educational courses was non-existent or beyond the budgets of the participants. On-site facilities were seldom available. For those that wanted to make changes, the barriers were overwhelming without the support of a single point of contact that could facilitate the process and support the efforts. Many of the agency personnel recognized the needs of the families, but work loads, failures of may clients, and lack of overall agency support of their efforts created a feeling of being overwhelmed. The single point of contact with a holistic approach to services was the most effective aspect for both the families and the fathers. This program would have been far less effective had we not had caring instructors and family liaison worker.

Issues

Program Implementation In a Prison Setting:

This kind of programming had not been done in this prison or any other prison to our knowledge. Traditional attitudes in this institution towards treatment of residents and treatment programs have made tremendous changes in the past few years. The prison leadership was very supportive of educational programming and allowed the develoopment of innovative approaches. The majority of the officers had become supportive and facilitative of treatment/educational programming over the past few years. Careful preparation, awareness of security precautions and policies, and regular communication with the security staff afforded generally smooth programming of the visits with the children. The attitudinal changes in many of residents aided in the acceptance of the programming in the prison setting.

The direct support of the Warden and Deputy Warden made significant contribution to the program. Their leadership should be noted that financial support in addition to the funding of the majority of the coordinators time as in kind services was significantly augmented with the purchase of $5,000 of computer equipment during the programming year as well and additional $5,000 for two more computers during the forthcoming year. This kind of programming cannot be implemented in this setting without the support of top management. Their support "filters down" and is felt by all including the participants and in itself creates a more positive atmosphere.

Caretaker Instruction and Support

As the program progressed, we became increasingly aware of the caretaker's need for family literacy instruction and support. We attempted to meet this need in an informal manner; however, in the second year of the grant, this aspect had been addressed. While the fathers were visiting with the children, the caretakers had an opportunity to attend an on site instructional class and interact together.

Post Release Instruction

All adult education programs attempt to address the educational needs of the participants; however, experience has shown that without additional support and services that a holistic approach provides, the problem can become overwhelming and, subsequently, dropping out becomes the norm. In the second year of the grant, programming included an instructional class that with additional coordination and counseling tiime aided the efforts of sustaining the holistic approach that was initiated in the prison setting.

The program was implemented in Northampton County Prison and support for a second year was established. An awareness within the prison setting for the need for holistic treatment between treatment elements of the prison staff improved. With the opening of a new physical setting which will house a drug and alcohol unit this summer, the growing possibilities of holistic treatment for these individuals presents exciting new challenges for further holistic treatment modalities.

The awareness of many individuals in the community of the needs of high risk families and their children is growing. The many linkages and personal contacts continues to facilitate the awareness of these problems. Many changes need to occur in the structure of our agencies in order to more effectively support literacy and job training. This is a long term problem of national magnitude. We can only plant seeds and demonstrate with patience, caring, and modeling the structure and mode of change. Local awareness has started as the coordinator, instructors, and family liaison worker spoke with numerous business, educational, church, and social groups.

The judicial system has become increasingly aware of the needs for literacy education. The awareness and support is crucial to the implementation of change and increased programming.This project was successful in increasing:a) the literacy level of the fathersb) the self esteem of fathersc) the awareness and practice of positive father rolesd) modeling the support of the school, the teacher and the familye) the awareness learning process f) the interaction of fathers with their children and in the beginning the healing of the bonds that had been fractured in the father's past as well as in their current relationships regarding their own needs and the needs of their children.

Conclusions

According to the Commonwealth of Pennsylvania Commission on Corrections Planning Final Report... "Many in our society who have no hope or vision for the future turn to substance abuse and crime and end up in our prisons. These are people with broken lives spending unproductive time in a system that eventually dumps them back into society, often worse for the experience and prepared only to commit more crime."

This program has provided a model for behavioral changes in a holistic manner with a combination of literacy skills and parenting for the fathers, support and ennoblement for the caretakers, and enabling support for the whole family during and following incarceration. The information gathered from the case studies (see appendix A) suggest that Incarcerated individuals and their "At Risk Families" need a holistic approach to case management in order to facilitate the risks of individual change and the re-establishment of broken bonds with the ultimate goal to break intergenerational patterns of literacy related problems. Many individual systems and/or programs within the systems have been initiated to "deal with" the problems, but the journey through the maze of segmented services requires coordination and support of a "case manager/liaison worker". The continued support beyond the institutional period is essential for long term reintegration into the family, the workplace, and the community . Information gathers from the the case studies (see appendix A) indicates that modest gains were achieved in educational testing and achievement. However, the gains made in areas related to education, but solely limited to education, seem to be much greater. Education is the key element to life long learning and the significant changes that need to occur in order to reintegrate these individuals into their families, their communities, and the workplace.

Every aspect of this program has positively influenced the treatment programming at Northampton County Prison and is increasing the awareness of the community as to the needs of these "at risk" families. During the past three years, this special project has become the hub for a holistic treatment program.

Bibliography

Barker, Joel Arthur. Discovering the future: The business of paradigms. 1988 IL Press. St. Paul, MN

"Breaking the cycle of Illiteracy: The Kenan Family Literacy Model Program." The William R. Kenan, Jr.Charitable Trust Family Literacy Project Final Report1988-1989. The National Center for Family Literacy.One Riverfront Plaza, Suite 608 Louisville, Kentucky 40202

"Commonwealth of Pennsylvania Commission on Corrections Planning". December 1993. Final Report. Casey, Robert P., Governor and David W. Sweet, Chairperson.

Darling, Sharon. 1988. "Family literacy education: Replacing the cycle of failure with the legacy of success. Kenan Trust Family Literacy Project, Louisville, KY

Kagan, S. 1991. United we stand. New York: Teachers College Press.

Kirsch, Irwin S., Ann Jungeblut and Anne Campbell. Beyond the school doors. The literacy needs of job seekers served by the U.S. Department of Labor. U.S. Department of Labor. Educational Testing Service, 1992.

Lancaster, Alden. 1992. An introduction to intergenerational literacy. Washington, DC: Wider Opportunities for Women, 1325 G Street NW, Lower Level, Washington, DC 20005

Lanier Jr., C.S. and Glen Fisher. A prisoners' parenting center (PPC): A promising resource strategy for incarcerated fathers. "Journal of Correctional Education". Volume 41, Issue 4, December 1990. pp. 158-165

Lanier Jr., C.S. and Glen Fisher. "The eastern fathers' group: An educational and mutual support program for incarcerated fathers". In Yearbook of Correctional Education, edited by Stephen Dugid. Simon Fraser University: Institute for the Humanities.

Learning a living: What work requires of schools. The Secretary's Commission on Achieving Necessary skills. U.S. Department of Labor. Employment and Training Administration. Washington, DC 20210, 1992.

McCall, Carolyn, 1988. "Nurtureing and parenting: How is it possible liside prison?"
Nurturing Today, S, 1: 8-9

Nickse, R. S. Family and intergenerational literacy programs: An update of "The noises of literacy." Brookline, MA: Nickse Associates. Eric Clearinghouse on Adult, Career and Vocational Education, 1990.

Scholtes, Peter R. The team handbook for educators - How to use teams to improve quality. Joiner Associates, Inc. 3800 Regent Street, P.O. Box 5445, Madison WI.
1994.

Teaching the SCANS Competencies. 1993 The Secretary's Commission on Achieving Necessary Skills. U.S. Department of Labor, Employment and Training Administration. Washington, DC 20210

THE VIDEO TELECONFERENCE HRD CLASSROOM: EFFECTIVE PRACTICE THROUGH QUANTITATIVE AND QUALITATIVE EVALUATION RESEARCH

John A. Niemi, Kevin Owens, and Barbara J. Ehrhard

ABSTRACT

This study reports on the evaluation research of graduate-level classes in human resource development (HRD), delivered through video-teleconference distance education (VTDE). It is hoped that this study will inspire instructors to transform their own VTDE classrooms into laboratories of effective practice. The authors discuss the background and approach to the course, describe the evaluation research strategy, give examples from the data, and explain students' responses to VTDE instruction.

Among the first video-teleconference distance education (VTDE) courses to be taught at Northern Illinois University (NIU) was a course in human resource development (HRD). This course was presented simultaneously at two locations in the Spring and Fall semesters of 1995 and the Spring semester of 1996. At NIU, HRD is an inter-professional field of study. Students who major in it base their program on adult education, counseling, or instructional technology. The synergy produced by students in these areas is enhanced by the addition of students from other departments. The classes consisted of American and foreign nationals, and part-time and full-time students at the masters and doctoral levels. Students' experience ranged from little or none to an impressive record in the field.

The VTDE course had a two-fold purpose: (1) to provide an overview of theory, research, and practice relating to individual development (training), career development (education), and organization development (change); (2) to acquaint students with the potential and complexities of the VTDE classroom, so that they can employ it confidently and intelligently as a delivery system in their own work settings. In effect, the classroom became a laboratory in which students studied both HRD and operation of the VTDE classroom. The behaviors of the instructor, the students, and the site coordinators combined to serve as a model for students. The task of the site coordinators was to prepare for classes by checking the quality of the VTDE transmission and to operate the system. When a site coordinator operated alone because the instructor was at the other site, the coordinator had the added responsibility of arranging discussion groups, responding to students' questions, and collecting students' papers and journals.

In this classroom/laboratory, students received a book of readings to supplement the textbook, paper copies of transparencies, study questions that served as advance organizers for the next class, and case studies and simulations designed to relate theory and research to practice. Selected HRD experts either attended a class at one site or interacted by telephone from their homes or offices with classes at both sites.

Obviously, this laboratory experience at both sites involved an immense amount of preparation on the instructor's part, including mastery of the VTDE system. According to Gehlauf, Shatz, and Frye (1991),

> Instructors do not want to be told how to teach; rather, they want to get a feel for the equipment and the specific technique they need to use to be more effective in interactive television classrooms. To facilitate this type of training, the technical system

> must be as "user friendly" as possible, so that the technology is transparent to the educational process. (p. 26)

As for the design of the program, some elements of the model developed by Blaney (1974) for curriculum formation proved useful. The model presents three modes of curriculum formation: institutional, shared membership, and individual. The institutional mode focuses on content as determined by the instructor, the shared membership mode focuses on learner-centered and problem-centered concerns, and the individual mode focuses on the self-directed learner (pp. 20-21). The institutional mode influenced the choice of the course content, as reflected in the course outline, the mini-lectures given to classes, and the final examination. The shared membership mode influenced the development of collaborative (group) activities, such as discussions of study questions presented as advance organizers, case studies, simulations, panels based on field trip reports, and the exchange of ideas with selected HRD experts. From these activities emerged mutual trust and teamwork at both sites, exemplifying some aspects of the team learning process so important in today's organizations. The self-directed mode found expression in the students' journals, which consisted of their reflections on content and process, often interspersed with practical applications of the material learned.

In the design of content and process, it would be easy to settle into a behavioral, structured approach to teaching and learning in a VTDE classroom. To avoid this possibility, the instructor must develop a credo, or personal philosophy, based firmly on conditions of adult learning. He or she is, after all, dealing with adults who would almost certainly reject the notion of watching a three-hour television lecture--hence the need for multiple activities as described above. One important condition of adult learning is the creation of a climate of trust to allay the anxieties of students confronting an unfamiliar delivery system. On the instructor's part, a climate of trust involves cherishing each student's individuality--his or her special needs, interests, and the rich life and work experiences that they bring to classes. To the VTDE course under discussion, students brought a rich background of life and work experience. Some of them also had worked in instructional design, media systems, and other HRD activities.

One initial strategy, employed at the first class session helped to create a friendly, relaxed atmosphere by forming dyads, with each student introducing his or her new friend to the two classes via a two-minute television spot. Another benefit of this experience is that it provided students with an early, natural opportunity to familiarize themselves with the delivery system. A second strategy for creating a friendly climate between the two classes was to bring them together for a dinner meeting with a speaker. An important condition of adult learning is that learners must enjoy a sense of progress toward achieving the goals of the course. This sense of progress became evident in the students' bi-weekly journals, which were read by the instructor and returned to them with his comments. These journals, together with evaluation instruments completed by students and site coordinators, formed the basis for evaluating the course.

Surveying the potential of technology to change the manner in which education can be delivered, Wedemeyer (1981) observed:

> What is different about learning via technology today is the scope of learning facilitated by technology, the altered roles of teachers and learners, the changed environment for learning necessitated by technology, and the sophistication of the processes used in developing instruction that will be communicated by technology. (p. 111)

To this observation the authors wish to add that research questions might need to be reshaped in light of conditions imposed by new technologies that might effect the answers.

Previous research on distance education has focused largely on the influence on students of separation either from the instructor or from the "home" classroom. The university-level classroom mediated through VTDE is deceptively different from previous patterns of distance education. In many ways, VTDE provides a traditional classroom experience. An instructor is present, both visually and aurally. Although students are not all physically present to each other, they remain in visual and aural contact.

Research issues, such as students' perceptions of their separation from the instructor, become harder to predict. Does the technology succeed in providing students with a satisfying classroom experience? Or does the technology instead magnify the differences between attendance at a single-site and participation in distance education delivery? Students in more traditional audio distance education situations are often affected, and by its obvious difference from the traditional classroom and judge its quality by separate standards. However, the goal of VTDE is to minimize the difference between this delivery system and a traditional classroom. The difficulty of predicting answers to these concerns, and others, from previous research on distance education confirms the need to collect longitudinal evaluation data from VTDE classrooms, in order to determine standards for effective practice.

The standards for conducting research, of course, do remain applicable. Research on distance education has shown that participant evaluation is consistently among the best indicators of the effectiveness of the learning experience (Schlosser & Anderson, 1994; Sachs, 1993; Verduin & Clark, 1991). During the initial three semesters of delivery, the authors' goals for the evaluation process were threefold: (1) to supply formative data to the instructor and site-coordinators for the ongoing improvement of instruction; (2) to provide students with an opportunity to participate in the evaluation process and reflect on their own learning experience, as an integral assignment of the course; and (3) to supply summative data as the basis for planning future VTDE classes. Included as part of the planning process was development of an evaluation instrument to collect longitudinal data for the improvement of future university VTDE classes.

The principal research question was: "What was the quality of the VTDE classroom experience?" To meet the goals that had been established for the evaluation process, it was necessary to collect data from multiple sources: a written record of class activities, with special attention to problems directly related to the VTDE delivery; entries provided in bi-weekly student journals; a summative evaluation instrument with narrative responses from the instructor and site coordinators; a five-point summative reflection paper by site coordinators; a summative evaluation instrument with Likert scale responses for students that was identical to instruments distributed by academic departments to all other (traditional) classes to evaluate instructor effectiveness; and a summative evaluation instrument with both Likert scale and narrative responses for students that directly queried the quality of their distance education experiences. With regard to the research question, data were analyzed with reference to their source and, where possible, triangulated across sources by both theme (e.g., instructor effectiveness) and by particular events (e.g., reaction to the failure of audio quality during session X). The evaluation research data, because of their multi-source origin, provided a rich view of three successive VTDE classes, and the complete analysis should prove useful to anyone interested in distance education.

The authors have limited the scope of this report to quantitative data obtained from a questionnaire based on students' summative evaluations (Table 1) and an academic department's summative instructor evaluation (Table 2). As a sample of the qualitative data collection, three items were selected from the bi-weekly student journals, each one from a different semester. For more examples from the qualitative data collection, refer to Niemi & Owens, 1996.

Table 1
Summative student evaluations

Percentage of students that agree or strongly agree			
	Spring 1995	Fall 1995	Spring 1996
1. This was my first experience of video-teleconferenced instruction.	92%	94%	100%
2. This was my first semester of graduate study.	19%	17%	21%
3. The on-site staff were helpful.	96%	97%	100%
4. The teleconference effectively made up for the absence of the instructor from my site.	69%	44%	33%
5. I believe that there was more student interaction at my site when the instructor was present.	88%	89%	82%
6. The instructor's teaching style, employed through this teleconference medium, facilitated my learning.	92%	68%	82%
7. Compared to a regular class, I felt as comfortable learning, using distance education.	73%	47%	55%
8. I reacted positively to seeing myself on camera.	58%	55%	46%
9. Compared to a regular class, my class participation experience remained the same.	48%	37%	57%
10. I found that the technical problems that occasionally occurred disrupted my overall learning experience in the class.	60%	80%	43%
11. Overall, this was a positive learning experience.	93%	91%	87%
N =	26	35	31

On the plus side, distance education provided me with a technological experience in which I feel lucky to have participated. I'm to be in charge of the program that I feel to be a tremendous opportunity. The opportunity to participate in this class has heightened my awareness of the complexity of what we hope to accomplish. I can also see other, less personal reasons for viewing distance education in a positive light. It provided me with an opportunity to take a class that was closer to my home, thus saving time. It provided me the opportunity to meet another type of student. Every student in this class was employed in the "real" world.

I have some difficulties as a learner with the instructional use of television. I think much is learned, both of course content and self, in the interactions in the classroom. With half the class at the remote setting, it is difficult to contextualize the comments and discussions emanating from the other site. I tend to be a "people-watcher," assessing body language along with spoken words. It is difficult to get the whole picture of the person when the individual is reduced to a television image. While I don't think that the level of material is reduced, I do feel that my natural means of processing discussion is somewhat affected.

I signed up for this class partly because it was a VTDE class. I had heard a lot about distance education, and I wanted to experience it first hand. I feel this is the learning of the future. Since I will be teaching programs for at-risk adolescence and their parents, I feel this was a great class to fit into my graduate school curriculum.

Table 2
Academic Department Summative Evaluations (Likert scale)

"How would you rate the overall effectiveness of this course?"

Semester	Site	N	Mean	S.D.
Spring, 1995	DeKalb	14	4.36	0.81
Spring, 1995	DuPage	17	4.53	0.61
Fall, 1995	DeKalb	12	4.25	0.60
Fall, 1995	DuPage	21	4.37	0.58
Spring, 1996	DeKalb	15	3.86	0.75
Spring, 1996	Hoffman Estates	11	4.45	0.66
"How would you rate the overall effectiveness of the instructor?"				
Spring, 1995	DeKalb	14	4.50	0.73
Spring, 1995	DuPage	17	4.50	0.71
Fall, 1995	DeKalb	12	4.58	0.49
Fall, 1995	DuPage	21	4.55	0.74
Spring,1996	DeKalb	15	3.93	0.92
Spring, 1996	Hoffman Estates	11	4.64	0.48

The classes evaluated each semester had the same instructor, content, and approach. The facilities, equipment, and the student demographics did vary from site to site and from semester to semester; but they were, generally, comparable. As for previous student exposure to distance education, the VTDE experience was new to almost everyone, although about four-fifths of the students had progressed beyond their first semester of graduate study. Several evaluation items received a consistent response. Eighty to ninety percent of students each semester reported more interaction when the instructor was physically present than when on camera. Students were about evenly divided concerning their comfort level with viewing themselves on camera. In all three semesters, students reported that they had an overall positive learning experience. The evaluations of both course effectiveness and instructor effectiveness were also consistently high (although the Spring, 1996, DeKalb scores were somewhat lower, given the larger standard deviation, it was not significantly lower). Graduate students, as a whole, are highly motivated learners; so it is not surprising that they reported a positive learning experience.

The differences among students' response to item #4 was probably due to a change in on-site support. During the Spring, 1995 semester, the site coordinator (a veteran of other distance education deliveries) and the instructor rotated sites. In the Fall, 1995 and Spring, 1996 semesters, new site coordinators had to acquire expertise in the technology and the distance education process as they went along. Furthermore, the new 1996 site had severe shortcomings that impacted the evaluations. The difference in percentages in item #6 was primarily due to the composition of the Fall, 1995 DeKalb class. It had the largest number of foreign students, who were often self-conscious about their English language skills. As for item #7, the lack of an adequate number of functioning microphones on campus (Fall, 1995) and at the other site (Spring, 1996) limited the spontaneity of interaction. Class participation was often inhibited at those sites, but the impact on overall measures of satisfaction with the experience (shown in item #11) was minor--probably due to students' enthusiastic participation in team learning activities. As for item #10, the lack of microphones required students to move constantly from their seats to the open microphone, in order to respond to the instructor. This situation was specially difficult for foreign students, who reported that technical problems had disrupted their learning.

A new evaluation instrument is being constructed for the 1996-97 academic year for distribution to all VTDE classes. Its focus will be on interaction in these multiple distance education settings.

REFERENCES

Blaney, J. (1974). Program development and curricular authority. in J. Blaney, I. Housego & G. McIntosh (Eds.), Program development in education. Vancouver, BC:

Cooley, W. & Lohnes, P. (1976). Evaluation research in education. New York: Wiley.

Gehlauf, A., Shatz, M. & Frye, T. (1991). Faculty perceptions of interactive instructional strategies: Implications for training. The American Journal of Distance Education, 5(3), 20-28.

Issac, S. & Michael, W. (1987). Handbook in research and evaluation, 2nd ed. San Diego: Edits.

Niemi, J. & Owens, K. (1996). Evaluation research for the development of effective practice in the video-teleconference distance education human resource development classroom. Proceedings of the 1996 Conference. Austin, TX: Academy of Human Resource Development.

Sachs, S. (1993). Supporting compressed video. In B. Hakes, S. Sachs, C. Box, & J. Cochenour (Eds.), Compressed video: Operations and applications (pp. 180-198). Washington, DC: Association for Educational Communications and Technology.

Schlosser, C. & Anderson, M. (1994). Distance education: Review of the literature. Washington, DC: Association for Educational Communications and Technology.

Verduin, J. & Clark, T. (1991). Distance education: The foundation for effective practice. San Francisco: Jossey-Bass.

Wedemeyer, C. (1981). Learning at the back door: Reflections on non-traditional learning in the lifespan. Madison: The University of Wisconsin Press.

John A. Niemi, Distinguished Teaching Professor, Department of Leadership and Educational Policy Studies, Northern Illinois University, DeKalb, IL 60115
Kevin Owens, Project Coordinator, The Learning Center, College of Education, Northern Illinois University, DeKalb, IL 60115
Barbara J. Ehrhard, Instructor, Computer Science, McHenry County College, Crystal Lake, IL 60014
Presented at the Eastern Adult, Continuing and Distance Education Research Conference, Penn State University, University Park, PA, October 24-28, 1996.

PATTERNS OF INTERACTION IN AN INTERNATIONAL AUDIOCONFERENCING COURSE: AN APPLICATION OF THE MULTIDIMENSIONAL AUDIOCONFERENCING CLASSIFICATION SYSTEM (MACS)

Naana Nti and Ellen Bunker

ABSTRACT

Communications technologies have created opportunities for new patterns of interaction in distance education courses. This study reports on research conducted on an international distance education course that used audioconferencing as one media in the course. Students were located in the United States, Mexico, Finland and Estonia. Based in Moore's theory of Transactional Distance, the data were collected using the Multidimensional Audioconferencing Classification System. Results showed differences in patterns of interactions for the different sites and for different instructional structures.

INTRODUCTION

Modern communications technologies have made possible many new and exciting possibilities for distance education. These technologies add new design opportunities to the existing media of print which has been in use in distance education methods for more than one hundred years. For example, course and program developers can now include both synchronous and asynchronous interactions with interactions that may occur between teacher and learner, between or among groups of learners, and between learners and content (Moore 1989). In addition, these technologies have also made it possible for a new emphasis to emerge in the field of distance education, the possibility of internationalism. Although international conferences and courses have been held in the past, the educational process of teaching courses across international and linguistic borders is becoming increasing common and possible. Decreasing costs and improved effectiveness of telecommunications media, as well as the move toward an emphasis on a global society, all lead to conditions for international distance education opportunities (Thompson 1996).

These new opportunities for distance educators suggest a pressing need for more research to assist in the design and development of distance education programs and courses. Research is needed to give guidance on fundamental questions about the most effective forms of practice for these new communications technologies and on the appropriate and beneficial amounts and types of interaction. Added to these questions is the need to better understand the dimensions and variables brought to design decisions by international settings.

This study looks at the interaction patterns during an audioconferencing portion of an international distance education course. For several years, the Adult Education Program at the Pennsylvania State University has offered courses to students at multiple sites who are also located in several countries. These courses brought together a virtual class of approximately one hundred students in Estonia, Finland, Mexico, and the United States. The media used for the courses included printed materials, audioconferencing, computer conferencing, audiographics and compressed video conferencing. Real time interaction, driven primarily by audio-conferencing, ran for six hours each week for seven weeks. An initial study of interaction in this setting was conducted to discover the frequency and duration of interaction among the students at the different sites (Bunker, Gayol, Nti, and Reidel 1996). The data were collected on a course entitled Teleconferencing in Distance Education. This paper reports on a follow-up study which re-analyzes the data collected in the initial study to determine the frequency and duration of the different types of interactions among the students in the international sites.

THEORETICAL FRAMEWORK

The theory of Transactional Distance (Moore, 1972, 1993) gives the theoretical foundation to this study. The theory states that the *distance* in distance education "is more than simply a geographic separation of learners and teachers. It is a distance of understandings and perceptions, caused in part by the geographic distance, that has to be overcome by teachers, learners and educational organizations" (Moore 1972, p. 2). This separation of teachers and learners affects both the teaching and learning acts and is a space of "potential misunderstanding" between instructors and students (Moore 1993, p. 22). Transactional distance is a continuous variable that measures this psychological and communications space and is present, to some extent, in any educational setting. The transactional distance present in any setting is determined by the amount of program structure, the amount of instructional dialogue, and learner autonomy. The interplay of these three variables influences the amount of transactional distance in the educational program and gives guidance for the design of a program. The purpose of the first study (Bunker, et al. 1996) was to determine the effects on dialogue among learners in an international distance education course as structural changes were made in the instructional design. This second study looks at the patterns of interaction in the dialogue, looking more closely at the types of interaction that were occurring during the audioconferencing portion of the class. The study notes the changes in frequency and duration of different types of interaction when the structural changes were made. The Transactions were measured with the Multidimensional Audioconferencing Classification System (MACS) (Cookson and Chang 1995).

MULTIDIMENSIONAL AUDIOCONFERENCING CLASSIFICATION SYSTEM

The MACS instrument was designed to record interaction during audioconferencing sessions. Based on previous work on interaction in both traditional and distance education settings (see, for example, Bales 1950, Simon and Boyer 1974, Boak and Kirby 1989; Burge and Howard 1990), it divides the interactions during an audioconference into interactional dimensions and distance education dimensions. The interactional dimensions include 1) positive and negative social-emotional dimensions and 2) the task area dimensions of questions and attempted answers. The distance education dimensions include 1) administrative dimension, 2) technical dimension, 3) visualizing dimension, 4) instructional procedures, and 5) miscellaneous (See Table 1). Each of these types of interaction are coded for who speaks to whom and the amount of time used in each transaction is recorded. The dimensions used by both the instructor and students are measured in this analysis.

Table 1. MACS Dimensions

Interactional Dimensions	Distance Education Dimensions
Social-emotional Dimension: Positive/Mixed shows solidarity, shows tension release, agrees, acknowledges	Administrative Dimension attendance, materials, delivery, time/content management (current session, future session), local arrangements, other administrative matters
Task Area Direction: Attempted Answers amplifies contributions of another, gives suggestions, directs, reacts to maintain level of participation, gives information	Technical Dimension equipment, checking operation, intermittent loss of audio signal, connections or re-connections, total loss of audio signal
Task Area Dimension: Questions asks for information, asks for opinion, asks for suggestion, amplifies or extends the questions of another	Visualizing Dimension imagery, reference to instructional materials, reference to visual aids, visualization of virtual classroom, visualization of site groups, projection of upcoming involvement of more than one site, disclosing own identity

Social-emotional Area Dimension: Negative /Mixed disagrees, corrects, shows tension, shows antagonism	Supplementary Notes instructional procedures, miscellaneous
Miscellaneous Dimension silence, confusion	

RESEARCH DESIGN

A quasi-experimental design was used in this research to collect the data. The instructor, at researchers' request, attempted to manipulate the structure of the interaction during the audioconferencing portion of the class. Four treatment conditions were designed that would alter the structure used by the instructor. The interactions during the treatment conditions were measured using the MACS. Measurements were taken to note the changes in dialogue when the instructor poses questions to learners under the following conditions:

1) Directed Planned—the instructor poses a question to a specific site; learners from the site have prepared a response in advance
2) Non-directed Planned—the instructor poses a question but does not address it to any specific site; learners from all sites have prepared a response
3) Directed Unplanned—the instructor poses a question to a specific site; learners from the site have not prepared a response
4) Non-directed Unplanned—the instructor poses a question, but does not address it to any specific site; learners from the sites have not prepared a response.

In the original study, due to the constraints of research data collected during an actual class, insufficient data were collected in the planned non-directed treatment and no results were available from that treatment. However, the data from the other treatments show that changing the structure of the interactions during the class influenced both the frequency and the duration of dialogue from the different international sites. Participants in sites in the United States dominated the dialogue when the questions were not directed to specific sites by the instructor. This was true for both the frequency of interaction and the average duration of those interactions. When the instructor included more structure in the question asking format by directing questions to specific sites, the frequency of inputs from the European sites increased, although the average duration of those inputs remained constant. When questions were directed to the Mexican sites, the frequency and the duration of the interactions increased (Bunker, et al. 1996).

The follow-up study tests the hypotheses that the frequency of both the instructor's and learners' responses from all sites and during all the different treatments will be greatest in the dimension of attempted answers. In addition, the duration of the attempted answers will be greatest when the students answers were planned. The duration of attempted answers will be equal when students responses were not prepared in advance. It is further hypothesized that the distance education dimensions will be equal for all treatments, but will be greater when international sites rather than Pennsylvania sites are involved in the transaction.

RESULTS

Eighty-three students were enrolled in the class: 31 (37%) from the four sites in the United States, 24 (29%) from two sites in Mexico, and 28 (34%) from three sites in Europe (Finland and Estonia). Data were collected on four different course days; however, as mentioned above, insufficient data were collected on one treatment and analysis was conducted on the remaining three treatments (see Table 2). The interactional dimension accounted for the bulk of the inputs (76.06 %) and time (89.96%), while the distance education dimensions accounted for 23.94 % of the frequencies of inputs and 10.04% of the total duration. Within the interactional dimension, the highest percentage of inputs (31.61%) and duration (64.69%) fell within the task area of attempted answers. The percentage of inputs for the positive social-emotional (19.63%) and asking questions (18.38%) dimensions were similar. However, the duration for these areas differed with the social-emotional dimension accounting for 8.35 % and questions accounting for 13.38%. No data were collected in the negative social-emotional dimensions.

Data were compared for the three different treatments: 1) unplanned directed, 2) unplanned non-directed, and 3) planned directed. Since the distance education dimensions from the MACS accounted for only ten percent of the duration in the data, the data reported below considers only the different factors in the interactional dimensions. Table 3 shows the frequency and duration percentages for four of the categories of the MACS (no data were collected in the negative social-emotional dimension). In the dimension of attempted answers, frequency of inputs by participants during treatment one was 33.33%, treatment two 43.42% and 14.53% for treatment four. The duration in this same dimension was 61.35 for treatment one, 78.32 for treatment two, and 72.18 for treatment three. These data show that when students were able to prepare answers in advance (treatment three), the answers were longer in duration than when answers were unplanned.

Table 2: Overall Frequency and Duration of Interactions

Interaction	**Frequency**	**% Frequency**	**Duration**	**% Duration**	**Average Duration**
Interaction Dimension					
Social	95	19.63	631	8.35	6.64
Answer	153	31.61	4891	64.69	31.97
Question	89	18.38	1012	13.38	11.37
Misc.	30	6.20	192	2.54	6.40
DE Dimension					
Admin.	56	11.57	679	8.98	12.13
Technical	1	.21	8	.10	8.00
Visualize	57	11.78	143	1.89	2.51
Misc.	3	.62	5	.07	1.67
Total	**484**	**100.00**	**7561**	**100.64***	**15.67**

Table 3: Interactional Patterns by Instructional Treatment

Treatment 1	**Frequency**	**% Frequency**	**Duration**	**% Duration**
Social	21	4.34	119	1.54
Answer	26	5.37	770	9.96
Question	27	5.58	353	4.56
Misc.	4	.83	13	.17
Total	**78**	**16.12**	**1255**	**16.23**
Treatment 2				
Social	41	8.47	283	3.66
Answer	66	13.64	2196	28.39

Question	32	6.61	281	3.63
Misc.	13	2.69	44	5.69
Total	**152**	**31.40**	**2804**	**36.31**
Treatment 3				
Social	33	6.81	229	2.96
Answer	61	12.60	1925	24.89
Question	30	6.20	378	4.89
Misc.	13	2.69	135	1.75
Total	**137**	**28.31**	**2667**	**34.40**

In order to determine if there were differences between the frequency and duration of inputs from the different sites, the data were compared by site (see Table 4). The instructor accounted for 46.29% of the total inputs and 55.74% of the duration. This dominance by the instructor is to be expected since the research design called for the instructor to control the structure of interactions during the treatment periods. In the dimension of attempted answers, the instructor had 13.43% of the inputs and 35.05% of the duration, showing that his answers had a longer average duration than other sites. The US sites had the highest percentage of student participation with 9.10% of the inputs and 15.62% of the duration of interaction. The US sites were followed by the European sites who had 6.20% of the inputs and 9.41% of the time. Mexican sites had the least number of interactional inputs (2.89%) and used the least amount of time (4.60%).

Table 4. Interactional Patterns by Site

Region	**Interaction**	**Frequency**	**% Frequency**	**Duration**	**% Duration**
Europe	Social	7	1.45	36	.48
	Answer	30	6.20	712	9.41
	Question	6	1.24	39	.52
	Misc.	3	.62	14	.02
Total		**46**	**9.51**	**801**	**10.43**
Mexico	Social	6	1.24	21	.28
	Answer	14	2.89	348	4.60
	Question	1	.21	8	.11
	Misc.	7	1.45	32	.42
Total		**28**	**5.79**	**40**	**5.41**
US	Social	11	2.27	96	1.27
	Answer	44	9.10	1181	15.62
	Question	6	1.24	91	1.20
	Misc.	9	1.86	22	.29
Total		**70**	**14.47**	**1390**	**18.38**
Instructor	Social	71	14.67	567	7.50
	Answer	65	13.47	2650	35.05
	Question	75	15.50	874	11.56
	Misc.	13	2.69	123	1.63
Total		**224**	**46.29**	**4214**	**55.74**

CONCLUSION

As expected, the frequency and duration for all three treatments was greatest for the interactional dimensions on the MACS instrument; only a relatively small amount of time (10%) was spent on distance education dimensions. Overall, the instructor used approximately fifty-six percent of the total interaction time. Within the interactional dimensions, the largest number of inputs and the greatest duration of time was in the task area of attempted answers which supported one of the hypotheses for the study. It was also hypothesized that the duration of attempted answers would be greatest in treatments where students had time to prepare answers. The data supported this hypothesis. An additional hypothesis stated that the duration of attempted answers would be equal among all sites when the instructor directed his question to these sites. The data did not support this hypothesis. Data showed that US sites participated more than the European or Mexican sites.

In the original study (Bunker, et al. 1996) data showed that when the instructor did not direct his questions to any specific site and the questions were not prepared in advance, that the US sites dominated in the frequency of inputs and in the total duration of those inputs. This re-analysis of the data looking at the patterns of interaction confirms this finding. The US sites used the majority of the student response time during this treatment. The transcript of this session was reviewed to give further insight into this finding. It was discovered that when the instructor asked the first unplanned question and opened the discussion to anyone at any site, participation came only from the US sites. After an initial round of discussion with the participants at the US sites, the instructor then asked another question and specifically directed it to the European sites. Although this broke the protocol of the treatment, the instructor responded to the lack of participation by the international sites, directing questions to both Europe and Mexico before he returned the discussion to the US sites.

Our research has several limitations. The area of inquiry is relatively new; the theoretical structure, though not new, is relatively untested, the MACS instrument is new and needs further validation as a measurement of interaction in audioconferencing. Because of the constraints of collecting research in an actual course, data were not available for all the treatment conditions. The research should be repeated to collect data on all treatments. However, the data has yielded important information about the patterns of interaction in an audioconferencing course that is taught across national boundaries. It supports the relationship between the variables of dialogue (interaction) and structure in distance education courses. In addition, the MACS has provided additional information about the patterns of interaction in this distance education course.

REFERENCES

Bales, R. F. (1950). A set of categories for the analysis of small group interaction. *American Sociological Review*, 5, 257-63.

Boak, C. and Kirby, D. (1989). Teaching by teleconference: What goes on. In R. Bedard (Ed.) *Proceedings of the Annual Conference of the Canadian Association for the Study of Adult Education*. ERIC Document Reproduction Service, ED 347 972.

Bunker, E., Gayol, Y., Nti, N., and Reidel, P. (1996). A study of transactional distance in an international audioconferencing course. In B. Robin, J.D. Price, J. Willis, and D.A. Willis, (Eds.) *Technology and Teacher Education Annual*, 1996. Proceedings of SITE 96—Seventh International Conference of the Society for Information Technology and Teacher Education, Phoenix, AZ, March 13-16, 1996. Charlottesville, VA: Association for the Advancement of Computing in Education (AACE).

Burge, E J. and Howard, J. L. (1990). Audio-conferencing in graduate education: A case study. *The American Journal of Distance Education*, 5(2),3-13.

Cookson, P. and Y. Chang (1995). The Multidimensional Audioconferencing Classification System (MACS). *The American Journal of Distance Education*, 9(3),18-33.

Moore, M. G. (1972).Learner autonomy: The second dimension of independent learning. Convergence V(2), 76-88.

Moore, M. G. (1989). Editorial: Three types of interaction. *The American Journal of Distance Education*, (3)2,1-6.

Moore, M. G. (1993). Theory of transactional distance. In D. Keegan, (Ed.) *Theoretical Principles of Distance Education*. London: Routledge.

Simon, A. and Boyer, G. (Eds.) (1974) *Mirrors for behavior: An anthology of classroom observation instruments*. Philadelphia: Research for Better Schools, Inc.

Thompson, M. M. (Ed.) (1996). Preface. *Internationalism in Distance Education: A Vision for Higher Education*. Selected papers from the first International Distance Education Conference, The Pennsylvania State University, June 1994. ACSDE Research Monograph No. 10. University Park, PA: The American Center for the Study of Distance Education, The Pennsylvania State University.

Naana Nti
Department of Agricultural and Extension Education
The Pennsylvania State University
323 Agricultural Administration
University Park, PA 16802
e-mail: non2@psuvm.psu.edu

Ellen Bunker
The American Center for the Study of Distance Education
The Pennsylvania State University
110 Rackley
University Park, PA 16802
e-mail: elb5@psu.edu

Presented at the Eastern Adult, Continuing and Distance Education Research Conference, Penn State University, University Park, PA, October, 24-26, 1996.

Distance Education and Media Technologies: The Case of Indira Gandhi National Open University in India

Countries around the globe are constantly struggling with the limitations of conventional education systems in terms of number of students enrolled, time allotted toward classes, access to educational facilities, student-faculty interaction etc. The problem is more severe in diverse and over populated countries like India. Distance education provides a cost-effective alternative for reaching out to those, who due to their socio-economic status cannot afford formal education. Indira Gandhi National Open university in India, is an excellent example of how well distance institutions fit the needs of many. IGNOU's in its short history of ten years already supports 3,00,010 students. At the core of IGNOU's work is the use of a number of media approaches that has opened greater possibilities. The purpose of this paper is to review and examine the case of IGNOU's with special emphasis on how various media technologies and approaches have been utilized to increase its outreach capacity.

Established in 1985, IGNOU was started with a dual goal, of functioning as a university and set standards for other distance education institutions, coordinate their activities and networking with each other through IGNOU. The networking prevents duplication of course production by other Open Universities when adopting an IGNOU course. General guidelines for course production require local open universities be allowed about 30-40% autonomy in customizing the course to their region. The main objective of IGNOU is to promote the general well being of the community by imparting knowledge via diverse instructional means incorporating available technologies.

Some of the major achievements of IGNOU, as stated by the Vice Chancellor, R.G. Takwale are : " Development and production of multi-media, self-instructional materials consisting of 64 programs (435 courses) 645 audios, 554 videos and a delivery system comprising 17 Regional Centres and 255 Study Centres spread over the country; Establishment of national and international level institutes/activities such as Staff Training and Research Institute in Distance Education, Sanchar Kendra (Electronic Media Production Center), and Training & Development Communication Channel (TDCC); Development of a common pool of programs and norms for sharing amongst Open Universities in the country."

Even though there are no documented studies relating success of IGNOU with its special focus on multi-media technologies, it is interesting to note that there has been a steady increase in the enrollment with the increase in use of multi-media technologies and study centres.

IGNOU changes its methods of disseminating information depending upon the content or material, and needs and requirements of the course. The university combines the use of the modern communication technology and the latest in educational technology to provide a quality education to its students. Thus it is a multimedia university that makes use of printed media, radio and TV broadcasts, audio-visual aids, home experiment kits and face-to-face teaching for its lessons. A distinguishing factor of IGNOU is that it is not partial to the use of any media, but emphasizes the choice of a medium be decided after scrutinizing the needs of the students and the content of the educational material.

Lessons Learned: Wilbur Schramm, a noted communication scholar once commented that electronic teacher is effective because it never tires of explaining the same point with similar consistency. Since audio-visuals are carefully planned, the instruction learner oriented and thus more effective. Additionally, use of various media keeps the student interested and divides the tasks of instructing based on the capability of each medium. It all adds up to the benefit of the distance learner.

Conclusions: Two important notes can be made from IGNOU's example. First, that use of multi-media motivates the learner, thus reducing the drop out rate. Technology reduces the isolation that the distance learner feels. Second, that study centres are helpful in providing the social contact for the distance learners. Additionally, it is important to note that IGNOU's policy of coordinating educational standards of other open universities aids in keeping the education over a vast country consistent.

References

"Asia and Pacific: A Survey of distance education", 1992, New Papers on higher education studies and research, No.7. A study conducted by National Institute of multimedia Institute in Japan in collaboration with ICDL and ICDE.

Datt, Ruddar, distance education in India, Present, Past and Future, March 89, Inaugural address given at the national seminar on distance education in India- Problems and Priorities and Policy Measures." (Patiala, India, March 4-5).

Khan, Inayat, ed., *Teaching at a Distance: Some Papers in Distance Education*, Amar Prakashan: New Delhi, India 1989.

Koul, B.N., Evaluation at Indira Gandhi Open University, New Delhi, India, a paper in the publication of FernUniversitat, Hagen, (West Germany). Zentrales Inst. Fur Fernstudienforchung Arbeitsbereich, Hagen. 1991.

Nikhilananda, Swami, The Yogas and Other Works, New York, Ramakrishna-Vivekananda Center, 1953.

National Studies India, Appeal, Asia Pacific Program of Education for all. Bangkok, Unesco Principal Regional Office for Asia and the Pacific, 1991.

Pandit, P.C., Use of Audio-Visual technologies in teaching English through Distance education, in *Teaching at a Distance, Some Papers on Distance Education*, I. Khan, ed., 1989.

Population Reference Bureau, *World Population Data Sheet,* Population Reference Bureau, Washington, D.C., 1995.

Reddy, G.R., Indira Gandhi Open University: A Case Study, PY, in *Developments of distance education in Asia: an analysis of five case studies.* Unesco, ICDE/UN, 1989.

Singh, Abhimanyu, Registrar, University of Rajasthan, "Distance Learning, From Correspondence Institute to Open University vie Distance Education Centre". A paper presented at All India Conference of Vice-Chancellors, Jaipur, India, December 5-8, 1984

Rafael Obregon
Penn State University
College of Communications
1400 Martin St., Apt. 2114, State College, PA 16803

Phone: (814)867-2391
Email: RAO7@PSU.EDU

Charu Uppal
Penn State University
College of Communications
P.O. Box 10635, Calder Way
State College, PA 16805
(814) 238-7803
CXU2@PSU.EDU

PLAYING IN THE CYBERSPACE SANDBOX: THE INTERSECTION OF THE HUMAN AND ELECTRONIC COMMUNITIES

Rena Palloff, Ph.D., LCSW and Keith Pratt, Ph.D.

ABSTRACT

The Fielding Institute is a distance-learning program offering mid-career adults PhD's in Human and Organizational Systems, Human Development, and Psychology. Its over 800 students are located all over the world and are linked electronically through the Fielding Electronic Network (FEN). The curriculum is organized into Knowledge Areas and students are expected to contract with faculty assigned to those areas in order to demonstrate mastery and application of the theory therein. The electronic network is often used to negotiate these contracts, to communicate, and, at times, to conduct seminars. It is also a powerful means to create connection and a sense of community in a diverse and scattered student body. The following is a description of a unique electronic seminar that was developed and conducted on FEN by two Fielding students. Its purpose was to create an interactive learning experience as well as to explore the parameters of the distance learning model. The outcome was the generation of an empowering, mutual learning experience, and a new paradigm for an electronic seminar.

INTRODUCTION

"To know someone here or there with whom you can feel there is understanding, in spite of distances or thoughts expressed, can make of this earth a garden." Goethe

As the world struggles with global communication, so we struggle daily with personal communication and interactions. Communication alone is a difficult and complicated process which entails a multitude of systems interacting on different levels. Body language, non-verbal clues, environmental effects, culture, and dialects are factors that we learn to accommodate over time as we attempt to interact. Societal and scientific advances and discoveries along with technological development have given us a different approach to a yet undefined problem. Complicating the issue of communication is the fact that we live in and search for community. Our basic need to connect on a human level has not only impacted the development of electronic communication but has conversely been impacted by it.

Electronic communication comes in several forms to include e-mail, public electronic forums, bulletin board systems, pay-for-use services, and electronic network chatting within an organizational structure. These forms of communication share several core issues that run throughout the medium and seemingly invade every type of electronic communication. Additionally, they pertain to the face-to-face communication that occurs as we attempt to build community. These issues are: *Virtual vs human contact; Connectedness and coalescence; Shared responsibility, rules, roles, and norms; Psychological issues; Spiritual issues; Participation; Vulnerability, privacy, and ethics; Restriction and its implications.*

We, in an attempt to identify, live, and work with these issues decided to put together an electronic seminar to explore and discuss them. Since The Fielding Institute represents an organization that relies both on electronic and face-to-face communication, as well as viewing itself as both a learning institution and a community of scholars, we hoped that our exploration would to some extent help Fielding, its faculty, and students better understand and deal with the issues surrounding these forms of communication. Our grandest hopes were that we contributed in some small part to the betterment of the institute and its struggle with distance education.

This "Sandbox baby" was conceived following our involvement in some painful electronic interaction on HODPROGRAM, a bulletin board on the Fielding Electronic Network. As we discussed our experience, we noted the difficulties involved in building community electronically. We further noted that the human elements involved in electronic communication often seem to be neglected in Fielding's electronic realm, leading to conflict and problems with decisionmaking. We found this ironic in a community that prides itself on openness and acceptance of difference. Consequently, we opted to create a structure wherein a small group of Fielding students could explore topics electronically that would tap into the humanness of grief, conflict, and interconnectedness. The purpose of this paper is to review the experience of the electronic seminar, including findings from the topics explored, and to discuss our mutual learning in both the technological and social psychological realms. Finally, we will discuss the implications of this work for the Fielding community and distance learning.

PROLOGUE

This electronic seminar took place over an 8-week period and proceeded, for the most part, in the fashion we had expected. However, some aspects were unanticipated. What follows is a brief chronological abstract of the major events that occurred and some of our own observations around these events.

After the establishment of some broad, general guidelines, the group entered a phase of "to trust or not to trust." The guidelines were as follows:

1. Complete honesty AT ALL TIMES.
2. Thoughtful and genuine feedback.
3. Professional and considerate interaction.
4. Ethically aware behavior.
5. No "side dishes" please. We prefer that everyone discuss their issues concerning this seminar online so that if we encounter a difficult issue, we attempt to work it through on the board.
6. Be up front about your own agendas and please post them on the board. We would also like to know what you expect from this seminar and where you plan to go with this post-seminar.

Initial participation, following the posting of brief introductions of the members, was to say the least slow and minimal. Participation greatly increased during the discussion of connectedness and coalescence. This topic included a heated discussion of the definition of community and created an opening for conflict. The working through of this conflict (which was perceived by some as flaming) was the initial bonding of the group and created a sense of community. This new "mini-community" was lovingly named the Sandbox, the term emerging from the conflict itself. The group moved from this point strongly into a sense of intimacy and trust. Emotions were shared as were personally stressful life situations and incidents. Support and nurturing were overwhelmingly given by all active participants.

Some interesting issues emerged regarding participation. Some of the initial core group of people who agreed to participate in the seminar did not continue while some continued but only in observation mode, occasionally indicating their presence. After several weeks, it became known that other members of the Fielding community, to include the President, were silently observing the progress and development of the interaction. Although we had notified the community at large that this was acceptable, we had asked that people indicate their presence on the board. Only a few people actually did that while the presence of others became known inadvertently. Interestingly, this did not impede the group in any way and in some ways may have encouraged the group to be more open and honest.

Midway through the process, active members began to express concerns about termination or "death" of the seminar. A mourning process began with some people talking about becoming addicted to this "novel" we were co-creating. The actual closure of the seminar included suggestions by some of ways in which to continue the work we had begun.

In many ways, the development of this Sandbox Community paralleled the development of most small groups or communities. The group moved through an initial phase of testing the waters, rapidly into a conflict phase, then into a phase of intimacy and work, followed by termination. What was fascinating was that even with the brief nature of the experience and minimal to no "human" interaction, all phases of group development appeared and were worked through. The study of this facet of electronic community may warrant further investigation in the future. (McGrath and Hollingshead, 1994, pp.91-92) Having reviewed the structure and process of the seminar, we now turn to a brief summary of the discussion of each of the eight topics that were tackled by the participants.

VIRTUAL VS HUMAN CONTACT

The notion of virtual vs human contact in electronic communication sets up an artificial dualism. Seminar participants agreed that since we generate our communication, even if textual, virtual communication *is* human. The removal of context clues in this form of communication can be both beneficial and detrimental. Textual communication is a great equalizer and hopefully prompts us to be more thoughtful about what we say online. The issue of isolation is also a factor when communicating electronically. Although we create connection while online, the risk of isolating ourselves from face-to-face contact in the process exists.

CONNECTEDNESS AND COALESCENCE

Evidence exists that electronic groups go through the same phases of group development as face-to-face groups. There are some who feel that it may be difficult to impossible to resolve conflict online, thereby moving an electronic group towards intimacy. This was not the case with this seminar. Conflict emerged and was resolved quickly. The ELCOMM.B[1] group formed a "mini-community" within the Fielding community and thereby forced a discussion of the elements which constitute community. It was concluded that the use of this medium to form community is forcing us to re-examine how we define community.

SHARED RESPONSIBILITY, RULES, ROLES, AND NORMS

There were few norms established at the beginning of the seminar. Basically, participants agreed to norms of openness and honesty. Norms around levels of participation emerged as the group progressed. The only established roles were those of the facilitators and it was agreed that the style of facilitation was not restrictive in any way. The facilitators functioned as peers in the discussion, only serving to move the process forward, a style that the participants felt comfortable with and appreciated.

PSYCHOLOGICAL ISSUES

Risk-taking for the purpose of connecting appears to be the main psychological issue facing those in community, whether electronic or face-to-face. The group agreed that the psychological benefit of being in community is the elimination of isolation. On a technical level, comfort with the medium and equipment being used contributes to a sense of psychological well-being.

SPIRITUAL ISSUES

---

[1] The bulletin board we created and used was named "ELCOMM.B," an acronym for electronic community.

All ELCOMM.B participants agreed that the electronic medium is a spiritual medium because it promotes connection between people. The creation of online rituals to celebrate or mark life transitions serves to enhance this aspect.

PARTICIPATION

More than in face-to-face groups, the "unseen" become an issue in electronic groups. People appear or disappear easily in this medium, and can be silently participating without notice. Although it was asked that others outside of the group who were reading the bulletin board make their presence known, few did so. This did not seem to inhibit discussion and their presence was acknowledged and ignored.

VULNERABILITY, PRIVACY, AND ETHICS

Despite the open nature of bulletin boards, many participants in online discussions experience a false sense of privacy. When this issue is addressed directly, the vulnerability of participation in this medium becomes evident as we are uncertain about how and if our contributions will be used by others. This discussion of ethics led to consideration of sexual issues online, including harassment, the use of innuendo, violation of boundaries, etc.

RESTRICTION AND ITS IMPLICATIONS

We generally respond to perceived threat in our culture through the use of restriction. When considering online communication and the ethical issues embedded therein, we begin to see a need for self-regulation and governance. We agreed that there is a need for the creation and monitoring of norms rather than restriction of access and use of this medium.

CONCLUSIONS AND IMPLICATIONS

The major goal in the creation of this seminar was to establish a safe space on FEN in order to discuss and wrestle with difficult issues that were not otherwise being tackled in the Fielding community. We feel that this goal was met and exceeded through the experience of the ELCOMM.B seminar. Despite indications from the literature that the creation of this type of environment is difficult to impossible to achieve electronically (Sproull and Kiesler, 1991; McGrath and Hollingshead, 1994), our goals were met almost exclusively through electronic communication. We drew strength from our human connection, even if that connection was exclusively online.

The majority of the core group of participants were people with many years of technical experience. Several times during the seminar they stated online that they had never had an electronic experience like this one. Never had they experienced this degree of intimacy and trust on an electronic bulletin board. Participants also commented on the differences in their behavior online and off, an aspect about which we have done further research. Our conclusions are that the anonymity and perceived safety of this medium allows participants to explore and experience components of their personalities that they might not otherwise access.

We ask ourselves what may have been the contributing factors leading to such a successful outcome: Was it the facilitation? Was it the norms established or the loose guidelines for participation? Was it the level of education of the group? Was it the absence of faculty input during the process? Was it the fact that the seminar was topic driven rather than Knowledge Area driven? We suspect that all of these factors came together to make this the experience that it was.

What was created was a "new paradigm" for an electronic seminar. Other seminars run electronically through Fielding are Knowledge Area driven. In many ways they perpetuate an old model of teaching and learning, wherein students are producing pieces of work that are to be evaluated and commented on by an "expert". There is discussion and feedback, but it relates to the work that has been presented. This forum by contrast was free-flowing and interactive. Students generated the bibliography of readings, set the guidelines, and created the structure, venturing into areas previously unexplored on FEN. This was truly an empowering mutual learning experience.

The implications of all of this are that as a community of scholars we need to be able to create an atmosphere of safety in all of our learning settings, whether electronic or face-to-face. Students need to be able to speak and debate their ideas without fear of retribution from any source. Faculty need to act as "playground monitors" or gentle guides while students "play in the sandbox", developing the norms and rules as we go. We are the experts when it comes to our own learning.

Fielding, as a community which combines electronic and face-to-face contact, needs to take another look at the means by which FEN is used. Currently the medium is underutilized. Mandating its use does not achieve the goal intended and is a beginning to an end. Instead we need to pay attention to the ways in which we orient new students to FEN as it is a powerful means to bring them into the community.

Finally, many current models of distance learning maintain a traditional student\teacher relationship in interaction with a set curriculum. Fielding has begun to move away from that model through its use of its electronic medium. The experience of ELCOMM.B shows us how much further we are capable of travelling into the unknowns of cyberspace to explore new worlds of electronic learning.

REFERENCES

McGrath, Joseph E. & Hollingshead, Andrea B. (1994), Groups interacting with technology. Thousand Oaks, CA: Sage.

Sproull, Lee & Kiesler, Sara (1991), Connections, Cambridge, MA: MIT Press.

Rena M. Palloff, Ph.D., LCSW
John F. Kennedy University
206 Lagunaria Lane
Alameda, CA 94502

Keith Pratt, Ph.D.
Ottawa University
825 W. 7th
Ottawa, KS 66067

We wish to acknowledge Don MacIntyre, President of the Fielding Institute, for his support of this endeavor and the ELCOMM.B seminar for their open, committed participation.

Presented at the Eastern Adult, Continuing and Distance Education Conference, Penn State University, University Park, PA, October 24-26, 1996.

A DECONSTRUCTION MODEL OF LITERACY'S POLITICAL AND CULTURAL HISTORY: THE POTENTIAL FOR POSTMODERN CHANGE

B. Allan Quigley

ABSTRACT: Today we see a decline in confidence towards past authority and the myths that "illiteracy can be eradicated." The field is adrift--uncertain of what to believe, more powerless than ever. Postmodernism calls for new interpretations of our past and new voices in our future. This paper presents two myth-creating social perspectives and discusses possibilities for our future.

LITERACY AND POSTMODERNITY

Some years ago Marx wrote: "Men make their own history, but they do not make it as they please; they do not make it under self-selected circumstances, but under circumstances existing already, given and transmitted from the past" (1971, p. 243). Although literacy education is often called "a fresh start" in its recruiting materials and literacy campaigns are always launched as "brand new," in fact teaching adults reading skills pre-dates the field of adult education by centuries (Stubblefield and Keane, 1989). Unfortunately, both adult literacy education policy and teaching practice typically ignore the circumstances "given and transmitted from the past. "New programs" and "new campaigns" are rarely "new" and, if fact, we repeat past mistakes in literacy and cannot see why.

This is not to say that the past plays no part in literacy--it plays a crucial part. Anyone attending a state or national literacy conference in the last decade will probably have witnessed a politician's speech followed by the moving testimony of at least one literacy student or graduate at the microphone. Here is the field's "dramatic formula" for levering political funding--show political figures how worthy literacy education is. Yet, here also is the careful selection of effective student story-tellers to sustain the most romantic of our practice myths. All this in our public persona and in the media in recent years is quite apart from daily program reality or the lived reality of low-literates not in programs. We have inherited and perpetuate a mythologizing tradition of depicting who low-literates are, what their needs are, what our role is--and that of government should be. Without realizing it we pass on meta-narratives inherited from the past.

In the 1990's, fewer are convinced by our myths--neither the media nor the politicians seem to be interested, no matter how maudlin the story. Cut from the moorings of its own myths, the field is adrift. We do not know how to proceed. We do not know how to influence either the public or the policy makers. When our myths fail, we fail. As postmodernist Henry Giroux puts it: "We have entered an age that is marked by a crisis of power, patriarchy, authority, identity and ethics" (1992, p. 39). How these myths have evolved and for what purposes; how the ethical and identity issues of today effect us, were the foci of this study.

It is posited that the multiple myths which have been perpetuated, for over a century, can be interpreted as follows:

Hegemony of the Political Perspective:
- ° Coercion
- ° Macro & policy
- ° Prescriptive
- ° Punitive

Hegemony of the Popular Perspective:
- °Co-option
- °Micro & student
- °Prescriptive
- °Humanistic

Sees Illiterates as

	STATE BURDENS IMPACT ON THE PROGRAM PATERNALISM	HEROIC VICTIMS IMPACT IN THE CLASSROOM MATERNALISM
Works with:	°Policies	°People
Functions:	°Macro-level	°Micro-level
Values:	°Logic	°Caring
Sees:	°Prodigal "Children"	°Special "Children"
Tries to:	° Correct	°Nurture
Goal:	°Work Ethic	°Self-Esteem
Mission:	°Independence	°Independence

DECONSTRUCTION MODEL FOR RE-INTERPRETING LITERACY

As seen below, this model argues that the field has been heavily influenced by two hegemonic value systems: the popular perspective and the political perspective. Both have helped shape the myths we are so dependent on but neither is persuaded by them today.

METHODS

Postmodernists argue for "recourse to fictional, aesthetic, and literary modes" (Chambers, 1990) to reinterpret our world. The above model posits that the illiterate has been presented in the popular perspective as a romanticized "Heroic Victim." This image has consistently fostered a "maternalistic" view in society which has been carried into most literacy classrooms. The political perspective sees illiteracy (not individual "illiterates") as a paternalistic consensus-building national issue to be linked with other national crises for consensus building. Rather than "rescue" illiterates, the political perspective wants to alleviate its "social burden." For the popular perspective research, an heuristic analysis of article content was conducted on all magazines from the Readers Periodical Index and The New York Times Index between 1980-1993. Forty novels, dramas, poems and short stories portraying illiterates from the 18th, 19th, 20th century and recent films were analyzed. For the political perspective, over 200 policy papers, advisory documents, and legislation were analyzed. Across the research, the questions were: 1) "How are illiterates/illiteracy portrayed?" 2) "What patterns of purpose arise? 3) "How does this affect the field?" This was a content analysis of two sources.

THE POPULAR PERSPECTIVE

On December 12, 1984, at the New York Public Library, The New York Times (Dougherty, 1984, p. 29) reported the media had chosen illiteracy as their "cause." The Advertising Council announced it would aim "to get 250,000 volunteers in the first year" (p. 29) using this first television ad in its new "full-court press," (p. 29):

> The single tv commercial, which will be available in 30 second and 60-second lengths, highlights the problem by showing a young father trying unsuccessfully to read a bedtime story to his daughter. As he stumbles and stutters with the words, the voice of Maureen Stapleton explains that the man is functionally illiterate, one of 27 million Americans who are so handicapped.

This first modern image has helped reinforce the historical popular image of the heroic victim. In fact, the heroic victim has been created in four consistent stereotypes. First, the simple American worker. The above Maureen Stapleton scene is traced to Dickens' Great Expectations. Pip is sitting before the "chimney fire" practicing his writing. He passes a note to his blacksmith uncle, Joe Gargery:

> I delivered this written communication (slate and all) with my own hand, and Joe received it, as a miracle of erudition.
>
> 'I say, Pip, old chap!' cried Joe, opening his blue eyes wide 'What a scholar you are! Ain't you?'
>
> 'I should like to be,' said I, glancing at the slate as he held it; with a misgiving that the writing was rather hilly.
>
> 'Why, here's a J,' said Joe, 'and a O equal to anythink! Here's a J and a O, Pip, and J-O, Joe.'

The heroic victim in this image is a simple illiterate worker seen repeatedly in the American popular media, as in Esquire (1984):

> The man is fifty-five years old. He is trying to learn how to read. He is a large man, balding and wearing thick glasses; he bears a resemblance to Ernest Borgnine. His plumber's work clothes--denim overalls, a flannel shirt--are still on. Today, as he does twice a week, he has driven straight from work to Mrs. Lord's house. His hands are dirty from his day's labor; as he points to the words on the spelling list you can see that he has not had time to stop and clean up. . . The next word on the list is down.
>
> "Down," the man says with confidence in his voice.
>
> "That's right," Mrs. Lord says. "Very good." (Greene, p. 10):

In films, novels, and the magazines, this stereotype is subject to a curious pattern of "humbling." The illiterate worker is humbled by circumstance, taught to be literate, and is suddenly sensitive and productive. A miraculous conversion of becoming "cultured." The second stereotype is the simple illiterate immigrant--never: "prideful" always simple and humble. In novels, such as Out of this Furnace (Bell, 1976), characters such as Mike Dobrejcak attend Americanization classes but become caricatures of "real Americans." Mike leaves the program wondering, "What General Braddock and George Washington were doing in these Pennsylvania backwoods was never made clear" (p. 120). In recent media, stereotypes such as seven year old immigrant, Maria, now attends an American school "Where each day the teacher called on students to stand and read. Trembling, Maria would rise, hoping the words on the page might magically make sense. But they never did" (Chazin, 1992, p. 131). This stereotype overcomes some economic hardship, but remains at a safe cultural distance.

The third stereotype is the simple African American illiterate, as seen in Walker's The Color Purple. Unlike the others, this stereotype rarely aspires to the American Dream. They are humble and become more humble. As Walker's heroine comes to realize: "The little I knew about my own self wouldn't have filled a thimble" (1982, p. 138). The fourth is the simple Southerner. The latter two come together with Bertha, a "stocky 63-year old black woman":

Bertha's father took her to school, often carrying her piggy-back on the three-mile trek. When she got older, she would take time off to help in the fields. By the time she would return to school, she'd have forgotten her lessons and would need to start all over again. Before Bertha reached her teens, she had quit school for good to work with their parents. (Jordan, 1987, p. 55)

Although the modern media chastised itself four years after beginning its modern campaign in New York for reports which "Appeared to be single shots--stories that editors ordered up one day, [and] reporters produced soon after" (Gersh, 1988, p. 22), the media was carrying on a popular tradition of trivializing illiterates and reproducing the dominant culture through myths.

THE POLITICAL PERSPECTIVE

This sees "literacy" at the macro level in association with policy. A more paternalistic, punitive view is held here. As early as 1880, illiteracy was portrayed as "This immense evil, our weakness and our disgrace, [which] extends among our native population as well as among those of foreign birth" (Leigh , pp. 802-803). Iliteracy had been associated with sin in Great Britain and the ability to read the Scriptures was the Puritans' antidote eternal damnation (but available only for men) (Stubblefield & Keane, 1989). This type of imagery was carried to the south during slavery where a legacy of plantation/state policies denied literacy and regulated an entire race. Throughout slavery, literacy was learned and taught at the risk of hanging or mutilation. Into the turn of the century and by the 1920's, as the YMCA stated, literacy was for regulating immigrants: we must "assimilate, develop, train and make good citizens out of them, [or] they are certain to make ignorant, suspicious and un-American citizens out of us. Unless we Americanize them they will foreignize us" (Carlson, p. 447). Requiring literacy tests of citizens before they could vote in many states was to deny the vote to women and other groups since only working men had access to Americanization classes (Cook, 1977).

The 1930's saw the rise of the CCC movement where illiterates were tutored in work camps. This was the first regulation of the unemployed with literacy as policy (Quigley, 1990). The 1940's saw illiteracy as a seed bed for Nazism--literacy the cure. Professor Russell observed that America was at risk: "It is important that we do not follow the Nazis . . . They have few illiterates; they have trained their bodies to be hard; they work with skill; they have apparently adjusted themselves to technology" (p. 82). During the '50's Korean War, illiteracy was presented as a seedbed for Communism (Cook, 1977). Fear of anti-Americanism by the illiterate echoes into today's media.

One of the periods of social policy exception occurred in the 1930's with Ambrose Caliver, an African American appointed Specialist in Education for Negroes with the U.S. Office of Education during the 1930's-'40's. Caliver found: "Although illiteracy in the States maintaining separate schools was four times greater among Negroes, the number of emergency teachers employed to teach illiterates was approximately the same as for whites" (cited in Quigley, 1990). Caliver designed the now forgotten Magna Carta of Negro Education, distributed during 1934-35 to assert the rights of Blacks to an equal education. Caliver was "folded into" the bureaucracy with time. After WW II, the new crisis was the technology race and he became less vocal.

GROWING GULF BETWEEN PERSPECTIVES

The rise of legislation through the mid-1960's and the later rise in funding and interest was actually the rise of ABE, not "literacy." The language changed after defeat of the proposed "Literacy Bill" of 1962 and '63 (Cook, 1977). From the 1960's to today, a new language has separated the sentimental popular perspective from the more technical political perspective of ABE. The National Development Act of 1962 set in motion a thrust where: "Usually a survey was made of the industrial needs of the area, a curriculum was designed, and an educational program was set up" (Cook, 1977, p. 83). Today, "literacy" in policy settings is "Adult Education" or ABE/GED. The recent popular perspective aroused in the Barbara Bush campaign remained separate from the George Bush political perspective. The 1991 National Literacy Act set policies for job development first and foremost with its definition of literacy: "An individual's ability to read, write, and speak in English, and to compute and solve problems at levels of proficiency necessary to function on the job and in society, [emphasis added] to achieve one's goals, and develop one's knowledge and potential" (cited in Quigley, 1991).

The 1990's continues the themes of the past, illiteracy has been linked to work and patriotism and, lately, to crime, as in Edward Kennedy's and Warren Burger's 1987 article in the New York Times: "Illiteracy costs the nation heavily in reduced international competitiveness . . . increased poverty . . . lesser skills in the armed forces . . . lost productivity and dead-end lives of crime and drugs" (p.27).

Today's postmodern era is critical of the old myths such as these. Our field is failing in its efforts to hoist them and will continue to do so. We need to see that the door to new voices, new ideas, new ways of trying to resolve old problems is finally opening (Giroux, 1992). Neither the public nor the politicians are sure of the credibility of the old myths, it is time to re-define who we are and what we do. Seeing our past and our meta-narratives critically can help us begin to think of adults as people--neither as victims nor heroes. Since the formula of myth-matching is failing anyway, we should be willing to inform the media and public of who our students actually are and begin to market programs as lifelong learning opportunities--not "second chances." We need to find a stronger, collective voice which involves our own students.

CONCLUSION

The field of literacy has tried to fund itself by levering the popular perspective onto the political; one set of sentimental meta-narratives has been used to try to influence other more punitive ones. State and national literacy conferences place newly-literate adults on stage to give testimony to the politicians we want to influence. By being caught in the middle of these two perspectives, the field remains a minor actor in this historic drama of myths and meta-narratives. And, we are ourselves a victim--playing lip service to both perspectives, fearing to raise our voice against either. With the postmodern possibilities of abandoning old metanarratives we can begin to rebuild for the future, but only if we first understand our past.

SOURCES

Bell, T. (1976). Out of This Furnace. Univ. of Pittsburgh Press.

Burger, W. & Kennedy, E. (1987, July 2). American needs a literacy corps. The New York Times, p. 27.

Carlson, R. (1970, Winter). Americanization as an early twentieth century movement. History of Education Quarterly, 441-465.

Chambers, I. (1990). Border Dialogues. New York: Routledge.

Chazin, S. (1992, October). Up from illiteracy. Reader's Digest, pp. 131-135.

Cook, W. (1977). Adult literacy education in the United States. Newark, DE: International Reading Association.

Dickens, C. (1911). Great Expectations. [orig. pub. 1861). New York: Charles Scribner.

Dougherty, P. (1984, December 19). Advertising: Drive against illiteracy. The New York Times.

Gersh, D. (1988, June 18). Editor & Publisher, pp. 20-21, 34.

Giroux, H. (1992). Border crossings. New York: Routledge.

Graff, H. (1979). The literacy myth: Literacy and social structure in the nineteenth-century city. New York: Academic Press.

Greene, B. (1984). The ABC's of courage. Esquire, 102 pp. 10, 12.

Jordan, P. (1987, August). Bertha's triumph. Readers Digest, pp. 55-59.

Leigh, E. (1871). Illiteracy in the United States. Washington, DC: Government Printing Office.

Marx, K. (1971, first published 1869). S.K. Padover (Ed.) The eighteen Brumaire of Louis Napoleon. On revolution, Vol. 1. pp. 243-328.

Quigley, A. (1990). This immense evil. In T. Valentine (Ed.). Beyond Rhetoric. Symposium paper. Athens: Univ. of Georgia.

Russell, W. (1942). Shortages in the midst of plenty. Teachers College Record, 44 (2), 75-83.

Stubblefield, H. & Keane, P. (1994). Adult education in the American experience. San Francisco: Jossey-Bass.

Walker, A. (1982). The Color Purple. New York: Simon & Schuster.

B. Allan Quigley.

Penn State University,
4518 Northern Pike, MONROEVILLE, PA, 15146

Presented at the Eastern Adult, Continuing and Distance Education Conference, Penn Stae University, University Park, PA., October 24-26, 1996.

CURIOSITY: A MULTIDIMENSIONAL DYNAMIC IN THE WORKPLACE

Thomas G. Reio, Jr.

ABSTRACT

This study explored the interrelationships between four dimensions of curiosity (external and internal cognition and sensation), three dimensions of socialization-related learning (job knowledge, acculturation, and establishing relationships) and two dimensions of job performance (interpersonal job knowledge and technical job knowledge) for entry-level employees of the landscape industry. Results indicated that both dimensions of job performance were significantly related to all three dimensions of socialization-related learning and the cognitive curiosity subscales as well. The job knowledge-socialization-related learning subscale was most highly correlated with technical job knowledge, and the acculturation and establishing relationships subscales were more highly related to interpersonal job knowledge. Overall, the results indicated that curiosity plays a positive and significant role in socialization-related learning and ultimately job performance. Implications for adult learning and socialization theory were discussed.

INTRODUCTION

CURIOSITY AND ADULT LEARNING

Daniel E. Berlyne (1954,1960), arguably the foremost curiosity theorist, posited that curiosity was a state of arousal brought about by stimuli of varying complexity and uncertainty. Curiosity, he proposed, motivated exploration of the environment in order to make sense of it, thereby resolving conceptual conflicts (e.g., conflicts between symbolic response tendencies such as beliefs, attitudes, and thoughts). As a result, new learning would occur (by comparing and updating the new knowledge against existing knowledge structures) and new knowledge would be stored. More simply stated, Berlyne thought of curiosity as the desire to acquire information and knowledge.

Loewenstein (1994) pointed to Berlyne's "path-breaking" research as the stimulus for a great deal of investigation into the definition and nature of curiosity (p. 77). While alternative curiosity theories have been developed, most curiosity researchers have at least implicitly conceded curiosity's dimensionality (e.g., Ainley, 1987; Byman, 1993), and have acknowledged its vital role in motivating and directing learning (Berlyne, 1963, 1978; Day, 1982; Loewenstein, 1994).

Tucker (1986) lamented that most curiosity research had focused on animals, children, and college students. Tucker concluded this lack of balance in curiosity research had contributed to the lack of understanding and concern about curiosity's relevance in adult learning contexts. Since the late 1960s, nevertheless, interest in adult curiosity has been increasing. Tough (1969), for example, reported that the urge to satisfy curiosity was the second most commonly expressed reason for engaging in adult learning projects. Likewise, in Carp, Peterson, and Roelf's (1974) national survey of learning interests and preferred modes of learning, 32 percent of the respondents designated the urge to satisfy curiosity as their motive for participating in learning activities.

Rossing and Long (1981), noting that curiosity had both an extrinsic and intrinsic motivational dimension, claimed that curiosity was indeed an important motivator of adult learning because of its significant positive relationship to the information's extrinsic or perceived value to the learner (intrinsic motivation as measured by surprise in the experiment was not statistically significant).

Camp, Rodrique, and Olson (1984) replicated the Rossing and Long study in part with similar results, and further determined that only diversive curiosity, or the need to seek new experiences (Day, 1971), changed with age, i.e., young people seemed more likely to be aroused to seek stimulation as a result of boredom than middle-aged or older adults. Camp et al. suggested that researchers should not expect older adults to be less curious since an older adult might even demonstrate more curiosity than a young adult once properly stimulated. This important discovery should help to dispel the common notion that older adults are less curious and thus less interested in learning new things.

CURIOSITY AND WORKPLACE LEARNING

For adults to make sense of and utilize the increasing amounts of new, novel, and discrepant information in our workplaces, continuous learning, and thus curiosity, is vital. Adults, from the moment they are preparing to apply for a job, through learning the complex requisite technical and interpersonal skills of their position, to surmounting the daily challenges of an ever-changing work environment, need to be always ready to learn and learn more.

Research has demonstrated that the workplace is an important learning environment (Kozlowski, 1995). Schein (1988) claimed that one meaningful area of workplace learning was the organizational socialization process. Ostroff and Kozlowski (1992) and others (Morton, 1993; Miller & Jablin,1991) reported organizational socialization to be primarily an informal, multifaceted learning process through which the organization's technical job knowledge, culture, norms, and procedures were communicated and transmitted. Consequently, socialization is largely a process which relies heavily on newcomer information acquisition and learning in order to master most technical and interpersonal job demands.

Through mostly informal means, therefore, new employees must be actively involved in gathering applicable information in order to learn the nuances of their position. By mastering these important job skills, the employee will be much more assured of higher levels of job performance and the organization will benefit. According to Copeland and Wiswell (1994), failure to "learn the ropes" or unsuccessful learning can have serious implications; it can lead to lower levels of employee commitment, job satisfaction, and adjustment, ultimately leading to increased employee turnover.

The business literature is replete with commentary extolling the encouragement of curiosity in the workplace. Tjosvold and Field (1982) noted that managers could affect the outcome of decision-making by structuring the manner in which group members were allowed to reach decisions. In training endeavors, for instance, groups in a controversy condition (versus a concurrence condition) searched for more information and explored a problem in greater depth (exhibiting increased curiosity). Moreover, Ostroff and Kozlowski (1992) claimed that by incorporating curiosity into training endeavors, companies could encourage the learning that would enable change. Inasmuch as curiosity directs and motivates learning, and organizational socialization is essentially a learning process, it is plausible to assert that curiosity plays an important role in this diverse adult learning environment.

CURIOSITY AND JOB PERFORMANCE

The notion that curiosity and continuous learning, in general, is a necessary component of a workplace capable of adroitly handling change can scarcely be argued against. One facet of learning in an adult context could be an individual's degree of successful socialization-related learning, especially for newcomers (Morton, 1993; Ostroff & Kozlowski, 1992). Moreover, another manifestation of learning could be the performance of one's job, as it is unlikely one could perform their job for any period of time without the benefit of some prior and continuous learning.

McCloy, Campbell, and Cudek (1994) defined performance as "behaviors or actions that are relevant to the goals of the organization in question....[and it] is multidimensional" (p. 493). Motowidlo and VanScotter (1994) also argued the construct of job performance is multidimensional and identified two "conceptually satisfying" underlying dimensions, i.e., task performance and contextual performance (p. 475).

Task performance or one's level of technical skill knowledge is the behavior associated with maintaining and servicing an organization's technical core. Motowidlo and VanScotter (1994) described task performance as directly transforming the raw goods of an organization into the goods and services that it produces. Examples of this would be teaching a college class, cashing one's paycheck at a bank, operating a printing press in a newspaper plant, or planting a tree. By contrast, Motowidlo and VanScotter believed contextual performance, which is a function of one's interpersonal skill knowledge, supports the broader social environment in which the technical core must function. Specifically, contextual performance is most closely related to the helping and cooperative elements of desirable organizational behavior.

Nevertheless, while curiosity is often reported to be an important part of the learning process (Berlyne, 1960, 1963; Day, 1971, 1982), and learning is indeed positively related to successful workplace adaptation and levels of job performance (Ostroff & Kozlowski, 1992), no research has been undertaken to determine the possible effects of curiosity and learning on different facets of job performance .

PURPOSE OF THE STUDY

While there is evidence of a significant relationship between the dimensions of curiosity and learning in general and one similarly between the dimensions of learning and job performance as well, no research to date has been undertaken to investigate the possible interrelationships between all three. Recognizing the extent of the relationships of curiosity to socialization-related learning and ultimately job performance could assist HRD practitioners in designing more effective developmental interventions. Thus, the purpose of this study was to systematically examine the possible interrelationships between the two independent variables, curiosity and socialization-related learning, to various dimensions of the dependent variable, job performance.

METHOD

The sample of research subjects included 115 entry-level members of a landscape company located in Gaithersburg, MD. All of the participants were horticultural technicians whose main task was to provide professional lawn and tree care to residential and commercial properties. This sample represented 86% of all the newhires in the previous 24 month period.

The subjects assessed their own curiosity levels with the Novelty Experiencing Scale (NES; Pearson, 1970), socialization-related learning with the Workplace Adaptation Questionnaire (WAQ; Copeland and Wiswell,1994), and job performance with a modifed version of an existing organizational performance appraisal instrument .

The Novelty Experiencing Scale (Pearson, 1970) is an 80-item personality trait scale, consisting of four 20-item subscales measuring the novelty experiencing or the desire or motivation for new experiences. The tendency to seek novelty is broken down into four scales on the basis of the source of stimulation and the type of subjective experience. The source of stimulation can be internal or external to the individual, while the subjective quality of the experience is either cognitive or sensational. Pearson combined these classifications into a 2 x 2 model, yielding four forms of the tendency toward novelty experiencing: External Cognition (EC), Internal Cognition

(IC), External Sensation (ES), and Internal Sensation (IS). Alpha coefficients were reported as .81, .87, .86, and .76, respectively.

The WAQ is a self-reported 19-item instrument, consisting of three subscales developed to measure employee socialization-related learning and one to measure their satisfaction with learning experiences. The four subscales are as follows: Job Knowledge (JK), Acculturation to the Company (ACC), Establishing Relationships (ER), and Satisfaction with Learning Experiences (SLE). JK refers to the extent the respondent reports mastering the tasks of his or her job and will consist of five questions. ACC is a five-item subscale that measures an employee's degree of learning the norms, values, and culture of the organization. ER, the third subscale, contains five items that assesses the employee's capacity to identify coworkers who could provide useful information or who know their way around the organization. Lastly, the four-item SLE subscale evaluates the employee's satisfaction with the learning experiences he/she has encountered while at the organization. Cronbach's alpha internal consistency reliabilities were respectively reported to be .83, .82, .81, and .86. For the purpose of this study, the SLE will not be examined.

The two proposed dimensions of job performance were also self-assessed on a nine-item questionnaire (the interpersonal job knowledge subscale had five questions while the technical job knowledge subscale had four). The subjects indicated their levels of technical skill knowledge and interpersonal skill knowledge on a nine-point Likert scale.

RESULTS

Table 1 presents the intercorrelations between the three dimensions of socialization-related learning, job knowledge (JK), acculturation (ACC), establishing relationships (ER); four dimensions of curiosity, external cognition (EC), internal cognition (IC), external sensation (ES), internal sensation (IS); and the two dimensions of job performance, technical (TCL) and interpersonal skill knowledge (INT) in the sample of 115 horticultural technicians.

The findings of this study supported the hypothesis that both curiosity and socialization-related learning were significantly correlated to both dimensions of job performance. The IC and EC subscales were both positively and significantly related to the JK and ACC socialization-related learning subscales, and the TCL and INT job performance subscales were significantly correlated to the IC and EC subscales as well. Predictably, the ES and IS curiosity subscales were not of statistical significance; "sensation seeking" is predominantly characterized by risk taking and the need for different experiences and sensations, not knowledge building per se (Zuckerman, 1979). The ER subscale's significant and positive correlation to interpersonal job knowledge (INT) and its nonsignificant relationship to technical job knowledge occurred as expected. Of particular note was the job knowledge subscale (JK) and its strong relationship to technical job knowledge (TCL) and the lack of any significant relationship between technical job knowledge and establishing relationships (ER).

Table 1
Interrcorrelations Between Socialization-Related Learning, Job Performance, and Curiosity Subscales

Subscale	1	2	3	4	5	6	7	8	9
1. JK	--								
2. ACC	.40**	--							
3. ER	.24**	.42**	--						
4. TCL	.68**	.22*	.13	--					
5. INT	.23*	.28**	.24**	.31**	--				

6. EC	.34**	.19*	.10	.32**	.22*	--			
7. IC	.36**	.26**	.15	.33**	.28**	.68**	--		
8. ES	.08	.06	.05	.15	.03	.26**	.04	--	
9. IS	.08	-.13	-.11	-.05	.09	.22*	.31**	.35**	--

Note. N=115 *p <.05 **p<.01

DISCUSSION AND IMPLICATIONS

The results of this study suggested that curiosity and socialization-related learning were indeed significantly related to the interpersonal (contextual) and technical (task) job performance dimensions. All of the cognitive curiosity (EC and IC) subscale intercorrelations were statistically significant except for the one between establishing relationships (ER). Similarly, the only nonsignificant relationships with the TCL job performance dimension were those between the ER and sensation seeking curiosity subscales (ES and IS). This supports the findings of Copeland and Wiswell (1994) who reported that seeking technical information is not necessarily the first step for newhires; they are more interested in determining who can help them find their way around the organization. Thus, the socialization-related learning process is initiated, in part, by a curiosity for first establishing relationships with coworkers, then by seeking information (being curious) about the norms and values of the organization, and ultimately acquiring the job knowledge to handle the job task. The results in Table 1 demonstrate this effectively as the correlations between the cognitive curiosity and socialization-related subscales and technical knowledge get progressively stronger, ranging from a nonsignificant .13 to a reasonably strong .68.

The overall implications of these findings points to the need of adult learning and socialization theorists to consider curiosity and socialization-related learning as significant determinants of job performance, especially task performance. Therefore, developmental interventions which focused on stimulating and promoting curiosity would be beneficial as curiosity plays an important role in workplace learning experiences. By consequently enhancing workplace learning experiences, employee job performance will ultimately be improved and the demands of an ever-variable work environment will be more adequately met.

REFERENCES

Ainley, M. D. (1987). The factor structure of curiosity measures: Breadth and depth of interest curiosity styles. Australian Journal of Psychology, 39(1), 53-59.

Berlyne, D. E. (1954). A theory of human curiosity. British Journal of Psychology, 45, 180-191.

Berlyne, D. E. (1960). Conflict, arousal and curiosity. New York: McGraw-Hill.

Berlyne, D. E. (1963). Motivational problems raised by exploratory and epistemic behavior. (1963). In S. Koch (Ed.), Psychology: A study of science. (Vol. 5). (pp. 25-33). New York: McGraw-Hill.

Berlyne, D.E. (1978). Curiosity and learning. Motivation and Emotion, 2(2), 97-175.

Byman, R. (1993). From two-dimensional to three-dimensional curiosity: A reanalysis of depth-breadth-factor model. Australian Journal of Psychology, 45(3), 155-160.

Camp, C. J., Rodrique, J. R., & Olson, K. R. (1984). Curiosity in young, middle-aged, and older adults. Educational Gerontology, 10(4-5),387-400.

Carp, A., Peterson, R. E., & Roelfs, P. J. (1974). In K. P. Cross & J. R. Valley (Eds.), Planning non-traditional programs: An analysis of the issues for post-secondary education. (pp. 11-52). San Francisco: Jossey-Bass.

Copeland, S., & Wiswell, A. (1994). New employee adaptation to the workplace: A learning perspective. In Proceedings of the National Conference of the Academy of Human Resource Development, pp. 35-40.

Day, H. I. The measurement of specific curiosity. (1971). In H. I. Day, D. E. Berlyne, & D.E. Hunt (Eds.), Intrinsic motivation. (pp. 77-97). Toronto: Holt, Rinehart and Winston of Canada, Ltd.

Day, H. I. (1982). Curiosity and the interested explorer. Performance & Instruction, 21(4), 19-22.

Giambra, L. M., Camp, C. J., & Grodsky, A. (1992). Curiosity and stimulation seeking across the adult life span: Cross-Sectional and 6-8-year longitudinal findings. Psychology and Aging, 7(1), 150-157.

Kozlowski, S. W. J. (1995, Winter). Organizational change, informal learning, and adaptation: Emerging trends and continuing education. The Journal of Continuing Higher Education, 2-11.

Loewenstein, G. (1994). The psychology of curiosity: A review and reinterpretation. Psychological Bulletin, 116(1), 75-98.

McCloy, R. A., Campbell, J. P., & Cudek, R. (1994). A confirmatory test of a model of performance determinants. Journal of Applied Psychology, 79(4), 493-504.

Miller, V. D., & Jablin, F. M. (1991). Information seeking during organizational entry: Influences, tactics, and a model of the process. Academy of Management Review, 16 (1), 92-120.

Morton, S. (1993). Socialization-Related learning, job satisfaction, and commitment for new employees in a federal agency. Unpublished doctoral dissertation, Virginia Polytechnic Institute and State University.

Motowidlo, S. J., & Van Scotter, J. R. (1994). Evidence that task performance should be distinguished from contextual performance. Journal of Applied Psychology, 79(4), 475-480.

Ostroff, C., & Kozlowski, S. W. (1992). Organizational socialization as a learning process: The role of information acquisition. Personnel Psychology, 45,849-874.

Pearson, P. H. (1970). Relationships between global and specific measures of novelty seeking. Journal of Consulting and Clinical Psychology, 34, 199-204.

Rossing, B. E., & Long, H. B. (1981). Contributions of curiosity and relevance to adult learning motivation. Adult Education, 32(1), 25-36.

Schein, E. H. (1988, Fall). Organizational socialization and the profession of management. Sloan Management Review, 53-64 (reprint).

Tjosvold, D., & Field, R. H. G. (1982). Managerial decision making: The effects of structuring controversy and consensus. pp. 1-12. (ERIC Document Reproduction Service No. ED 227389).

Tough, A. (1969). Some major reasons for learning. Self-Concept in adult participation: Conference report and bibliography. (ERIC Document Reproduction Services No. ED 033252). pp. 19-38.

Tucker, E. W. (1986). The interrelationships among curiosity, age, and age phases and transitions of adult development. Unpublished doctoral dissertation, The University of Texas, Austin.

Zuckerman, M. (1979). Sensation seeking: Beyond the optimal level of arousal. New York: Lawrence Erlbaum Associates.

Thomas G. Reio, Jr., Virginia Polytechnic Institute and State University
Presented at the Eastern Adult, Continuing and Distance Education Research Conference, Penn State University, October 24-26, 1996.

LEARNING AND NEW VOICES: LESBIAN DEVELOPMENT AND THE IMPLICATIONS FOR ADULT EDUCATION

Diane Resides
Penn State University

Abstract:

This study contributes to the understanding of lesbians, an oppressed group of people, from their perspective. Incorporating the unique life experiences of lesbians adds value to the research base of the field. This type of research is necessary to give "voice" to diverse groups in theory building and to reveal the "myths" presented in the adult education literature.

Introduction:

"A word is dead when it is said, some say. I say it just begins to live that day." Emily Dickinson's simple but effective quote implies that words and resulting images and labels are powerful. Relatedly, the literature supports that the term lesbian conjures up stereotypical negative images such as deviant and abnormal. Predictably, but unfortunately, the word lesbian conjures up negative images and feelings by implying the undermining of the advantages and privileges of the dominant group. Much like a kaleidoscope, stereotypes of lesbians have been an ever changing pattern depending upon the time and place in history.

Additionally, literature reflects the difficulty in defining lesbian identity. Brown's (1994) definition is noted because of its broad and flexible nature. Brown (1994) defines lesbian identity as primarily a self-ascribed definition held by a woman over time and across situations as having primary sexual, affectional, and relational ties to other women. This identity may or may not be congruent with overt behavior at any point during the life span and the variables comprising this definition may come and go as prominent as life circumstances change. Central to this definition is that the lesbian sees her relationships and connections to women as primary, whether acted upon or not, and identifies herself as outside the sexual mainstream.

Lesbian identity means one has a minority sexual identity and recognizes through the use of language or symbolic expressions that her sexual orientation sets her apart from the sexual mainstream, even though she may not use the term "lesbian". The need for a strict well prescribed definition reflects the notion of dichotomous thinking exemplified by white Eurocentric cultural philosophies; the need for separate and mutually exclusive categories of sexual orientation.

While there is virtually no literature that deals with gay and lesbian issues in adult and higher education context, Tisdell & Taylor (1995) and Hill (1994) focused broadly on gay men and lesbians. This paper builds on these works.

Lesbian developmental theories:

There have been several models of identity development proposed by Cass (1979), Chapman & Brannock (1987), McCarn & Fassinger (1990), and Sophie (1986). Most of these models are developmental and include a sequence of events, thoughts, experiences, feelings, or behaviors that occur over time. The key factor in each model is the "coming out" process which means the process of identifying, acknowledging, and disclosing one's sexual orientation. However, the time to complete this process can vary greatly. Some people go through this process quickly whereas others can take several years.

There is variation in the array of models. Cass' model consist of six detailed stages that include identity confusion, identity comparison, identity tolerance, identity acceptance, identity pride, and identity synthesis. At the other end of the spectrum is a model by Schneider which entails two factors. Identity shifts from heterosexual to lesbian, gay, or bisexual and the view of this new identity shifts from negative to positive. Other models, like McCarn & Fassinger's are not so linear and espouse a recyling process through stages or an oscillation between stages (Buhrke & Stabb, 1995).

Sophie's (1986) model is based on a synthesis of six prior models of lesbian and gay identity. Her model has four stages: (a) awareness of homosexual feelings, (b) testing and exploration, (c) identity acceptance, and (d) identity integration. Unlike women in the early stages of lesbian identity linear models are inadeuate to portray women in later stages of lesbian identity. Sophie (1986) posits that the assumption of linearity results in the failure of stage theories to account for the diversity of experience of participants. The process of lesbian identity development must be viewed in the context of social and historical conditions.

Chapman & Brannock (1987) describe a five-stage process by which lesbians come to self-label (vs. come to terms with attraction to same sex people as in other models). The stages are: (a) same-sex orientation, (b) incongruence, (c) self-questioning and exploration, (d) identification, and (e) choice of lifestyle. The process of self-labeling varies considerably among lesbians. Chapman & Brannock propose that lesbian identity awareness is the first step in the self-labeling process resulting from a recognition of "differences" between one's own feelings/orientation and those of the heterosexual environment. Testing of this model indicated heterosexual involvements as part of the self-questioning and exploration behaviors.

Faderman's (1984) model of lesbian development roots lesbianism directly within the process of feminist identity development. Faderman (1984), proposes the existence of "new gay lesbians'" who begin with a critique of social norms (including heterosexuality) which they then internalize into a total feminist commitment to women, which includes a choice of lesbianism. This model places the concepts into a context rather than just innate factors.

McCarn & Fassinger (1990) argue that none of the lesbian identity models efficiently take environmental context into account. Many of the gay/lesbian models are built from models of Black racial and political consciousness and thus imply that fully integrated and mature identity entails full public disclosure and political activism. This approach ignores the cultural location, life choices, and environmental constraints of lesbians diverse in age, historical context, geographic location, race and ethnicity, class, religion, and other forms of diversity that certainly impact lesbian development. Failing to consider the envionmental context results in blaming the individual for his or her inability to accept an oppressed identity (McCarn & Fassinger,1990).

McCarn and Fassinger's model presenting two parallel processes deals with weaknesses in previous models. The two processes are an individual sexual identity process involving the awareness and acceptance of same sex erotic and lifestyle preferences and a group membership identity process involving the confrontation of oppression and the acceptance of one's status as a member of an oppressed group. The key point in this model is that one's individual sense of self can be separated from the extent that one identifies with or publicly participates in lesbian culture. This model implies more flexibility by its use of phases rather than stages. The phases include (a) awareness, (b) exploration, (c) deepening and commitment, and (e) internalization and synthesis. This model doesn't assume disclosure behaviors are necessary for developmental progression, but rather it is the process of resolving these questions that exemplifies maturity. The model also assumes a reciprocal and catalytic relationship between the two processes of individual sexual identity and group identification (McCarn and Fassinger, 1990).

Feminist perspectives:

Feminist theory generates knowledge about women's lives to make them visible and to help dispel myths of women's existence. Espousing a feminist lens means being critical of all assumptions, values and definitions. Feminist theory provides a way for women to be central and subjects of study; subject matter is placed in a cultural context. This approach uses lesbian voices as the means to understand lesbian identity development. Issues of socialization and other assumptions are revealed in such a critical perspective.

According to Reinharz (1992), feminist research reveals "social truths" and provides an understanding of the relations between power, gender, class, race, age, ethnicity, disability, and sexual orientation. Reinharz (1992) states that feminism means dissatisfaction with the status quo and a commitment to work for change.

Zita (,1994) states that feminist writings have argued that it makes a difference as to who says what, when, and to whom. Theories primarily built on the experiences of white, heterosexual, economically and educationally privileged men distort and erase the experiences of those who are marginalized by "knowledge-seeking experts." Rich (1986), observes that, "Lesbians have historically been deprived of a political existence through 'inclusion' as a female version of male homosexuality. To equate lesbian existence with male homosexuality because each is stigmatized is to erase female reality once again" (p.100). Kitzinger (1990) and Rich (1986), purport that universities as ideological and cultural heterosexual patriarchal institutions, create a set of circumstances that in effect assume control over the "private" lives of lesbian and gay persons. Therefore, lesbians and gays experience "public" academic life in very different ways than those with heterosexual privilege.

Benismon (1992) speaks to the importance of a feminist and, more importantly, a lesbian lens to understand lesbians. Standpoint feminist epistemology provides the interpretive framework from within which to formulate a lesbian centered reality that is in opposition to the patriarchal and heterosexual construction of the academy. The tenet of standpoint feminist epistemology is that knowlede is socially situated and that in order to interpet and understand the situation of the particular "other" it has to start from their lives. Standpoint feminist epistemology encourages the movement away from adding the "other" to previously existing frameworks and moves toward knowledge grounded on experience of these "others". This approach reveals how the vision of the dominant heterosexual class structures the public sphere in ways that can be oppressive for lesbians. Lesbian standpoint theory illustrates how institutional context that is ruled by disourse rendering lesbians invisible is a denial of female agency and disempowering to all women. A lesbian standpoint situates knowledge in the experience of women who are lesbians. This debunks the thought that all women are alike irrespective of sexual orientation, class, race, or disabilty. Viewing an institution from a lesbian perspective helps to present a different perspective and understanding of the situation. This view has the capacity to reveal how the dominant vision (heterosexual male) disadvantages marginal groups including lesbians.

Significance to the field of adult and higher education

Research on lesbians is problematic to date. Some of the limitations include the following: 1) majority of studies of lesbian development have used gay men as comparisons rather than other women, 2) most studies are done with white, middle class, young, able bodied women or men as subjects and 3) much research in adult education has a heterocentric bias in its research methods, topic selection, sample selection, and reporting of results.

Homophobia is a major aspect affecting lesbian, gay, and bisexual individuals. Weinberg defines homophobia as the irrational fear and hatred of lesbian, gay, and bisexual people (Buhrke & Stabb, 1995). Institutional homophobia means discrimination based on sexual orientation by government, business, educational institutions, and other organizations. Cultural homophobia is defined as the social norms existing in society which oppress lesbians, gays, and bisexuals.

Heterosexism is the assumption or belief that heterosexuality is the only acceptable or viable life option (Blumenfeld & Raymond, 1988). The lesbian, gay, and bisexual experience is seen as inferior (Iasenza, 1989) and heterosexuality is viewed as natural and normal (Fassinger, 1995). Heterosexism is not as blatant as homophobia. It is manifested in lack of knowledge, legal institutionalization, bias in research, and language. Heterosexuality is the silent term. The heterosexual assumption in educational institutions means that lesbians are seen as isolated examples which perpetuates silence in individuals. It is often what is left unsaid that is more telling of what is important and powerful rather than what is said. As reflected by O'Barr (1994), "putting up a mirror to my own experiences taught me how to construct windows onto the experiences of others whose backgrounds and needs differed from my own." (p. 21) Similarly, by incorporating reentry women, educational institutions have had to confront the limitations of their traditional understanding of education. O'Barr (1994) concludes that women have been changing for over two decades to fit into the system of higher education; it is now the responsibility of educational institutions to make changes

The challenge in adult and higher education is to carefully listen and to hear different voices rather than just the voices of the chosen few. Incorporating this multitude of voices into institutional actions is a way to create change. Lesbian voices bring to campus a myriad of opinions representing the society at large. Drawing upon the analogy of the kaleidoscope gives vision to the idea of silenced voices. Just as one twist of the kaleidoscope changes the image, one twist of thought can change the perspective on issues. The images in the kaleidoscope present continuing changes. What an individual views at one point in time will not be the same image when he or she looks a second time. This is likened to the power of education. When one's eyes become "opened" per se, to knowledge and ideas, there is no shutting them again. This progression of thought if embraced and fostered can be the impetus for change within educational institutions. Breaking the status quo, that is, the traditional, conventional way of doing business is a formidable task. However, it remains vital to the future of higher education that other voices are included. Hiring, promoting, and affirming a diverse workforce and student body is no longer just the "right thing to do," but it is necessary for economic survival. In order to be competitive we need to be educating our faculty, staff, and students by equipping them with the skills necessary to interact and relate to a diverse world.

Knowledge and identity are partial and constructed subject to multiple interpretations and reconfiguration. The present culture of domination reinforces certain values, beliefs, and assumptions. Eurocentric heterosexist values perpetuate the quest for sameness while rendering difference inconsequential. It is not enough for individuals to change, changes must occur within the ideologies of the organization which have historically silenced some individuals while giving voice to others.

Extending the frontier of knowing, to include matters historically silenced within institutions of higher education, will alter academia. McNaron (1994) suggest some strategies to resist those opposed to this important scholarship. These strategies include (a) seeking collegues in other departments with whom to form alliances to gain support for lesbian related matters, (b) recripocate this support to these departments, (c) speak honestly with students about the false and repressive arguments against feminist and multiculturalist work, (d) refuse to recede into anyone's closet. In other words, speaking the "L" word and sharing with others how a lesbian lens on literature will enrich and clarify works and theories previously studied., and (e) mentoring lesbian students and junior faculty.

This study contributes to the understanding of a diverse and oppressed group of persons from their perspective. Acknowledging and embracing the unique life experiences of lesbians adds value to the research base of the field. Furthermore, this research provides a deeper and richer meaning to the experiential component of adult education. This type of critical research reveals the "untruths" presented in the adult education literature. Such information is necessary to assist the field in including diverse groups and diverse "voices" in theory building.

References

Bensimon, E. (1992). Lesbian existence and the challenge to normative constructions of the academy. Journal of Education. 174 (3), 98-113.

Blumenfeld, W. J. & Raymond, D. (1988). Looking at gay and lesbian life. Boston: Beacon.

Brown, L. (1995). Lesbian concepts and issues. In A. D'Augelli & C.Patterson, (Eds). Lesbian, Gay and Bisexual Identities Over the Lifespan:Psychological Perspectives (p. 3-23). New York,NY: Oxford University Press.

Buhrke, R. & Stabb, S. (1995). "Gay, lesbian, and bisexual student needs." In S. Stabb, S. Harris, & J. Talley (Eds.) Multicultural needs assessment for college and university student populations. (pp. 173-201). Springfield, Ill: Thomas Publisher.

Cass, V. C. (1979). Homosexuality identity formation: A theoretical model. Journal of Homosexuality. 4, 219-235.

Chapman, B. & Brannock, J. (1987). " Proposed model of lesbian identity development: An empirical examination." Journal of Homosexuality. 14 (3/4), 69-80.

Faderman, L. (1984). The "new gay" lesbians. Journal of Homosexuality. 10, 85-95.

Fassinger, R. (1995) "From invisibility to integration: Lesbian identity in the workplace." In The career development quarterly. Savickas & Subich, Eds., 44 (2), 148-167.

Hill, R. (1995). Gay discourse in adult education: A critical review. Adult education quarterly. 45 (3), 142-158.

Iasenza, S. (1989). Some challengings of integrating sexual orientation into counselor training and research. Journal of Counseling and Development. 68, 73-76.

Kitzinger, C. (1990). Beyond the boundaries: Lesbians in academe. In S. Stiver Lie & O'Leary (Eds.) Storming the Tower: Women in the academic world. London: Nichols Publishing.

McCarn, S. R., & Fassinger, R. E. (1990). Development of a model of sexual minority identity development. Unpublished manuscript. University of Maryland.

McNaron (1994). Life on the fault line: Lesbian resistance to the anti-pc debate. In L. Farber (Ed.) Tilting the tower (pp. 251-257). New York: Routledge Press.

O'Barr, J. (1994) Feminism in action: Building institutions and community through women's studies. Chapel Hill, N.C.: The University of North Carolina Press.

Reinharz,S. (1992). Feminist methods in social research. New York: Oxford University Press.

Rich, A. (1986). Invisibility in academe. Blood, bread, and poetry: Selected prose 1979- 1985 (pp. 198-202).

Sophie, J. (1986). "A critical examination of stage theories of lesbian identity development." Journal of homosexuality. 12(2), 39-51.

Tisdell, E. & Taylor, E. (1995). Out of the closet: Lesbian and gay adult educators and sexual orientation issues in the university learning environment. In P. Collette, B. Einsiedel, & S. Hobden (comps.) , 36th annual adult education research conference proceedings. Edmonton, Alberta, Canada: University of Alberta.

Zita, J. (1994). Gay and lesbian studies: Yet another unhappy marriage? In L.Farber (Ed.) Tilting the tower (pp. 258-276). New York: Routledge Press.

Diane Resides
323 Boucke Building
University Park PA 16802
Presented at the Eastern Adult, Continuing and Distance Education Research Conference, Penn State University, University Park, PA, October 24-26,1996

NEW ROLES FOR CE: ASSESSING READINESS FOR CHANGE

Robert W. Surridge

ABSTRACT

Using the current situation at Penn State Harrisburg as a backdrop, this paper describes the shift of the central university to serving part-time and evening students that were once the exclusive market of continuing education. Donaldson (1991) and others suggest research and service outreach, in addition to educational outreach, as the new role for continuing education. In this role, continuing educators will break down barriers and serve as the link between the academic departments and the external community.

Continuing education administrators and others must determine if expanding continuing education to include research and service outreach is a viable role for continuing education. To this end an assessment scheme designed by Higgerson (1988) is described. Conducting assessments of continuing educator's readiness to accept new roles is recommended as a logical step to precipitate factually based judgments and actions.

INTRODUCTION

At Penn State Harrisburg[1] many offerings delivered by the College's Office of Continuing Education (CE) are similar in nature to programs offered by the College's academic units. The following comparison of the master's program in health education delivered by Penn State Harrisburg CE and the master's in public administration delivered by the School of Public Affairs or regular education (RE) is provided to illustrate and further define the problem. Both programs are offered under the authority of the University's graduate school. The classes in both programs are delivered on weekday evenings and occasionally on weekend days. All the classes in health education are taught on the Middletown campus. Most classes in public administration are taught at the Middletown campus and some are offered in downtown Harrisburg. A few of the public administration classes have been delivered to distant locations using compressed video conferencing technology. The individuals enrolled in both programs are generally part-time students with full-time job responsibilities. The instructors are either full-time or part-time faculty employed by Penn State Harrisburg. As you can see, these CE and RE programs are very similar. The major difference between the CE program and the RE programs is financial. Continuing Education programs are tuition-driven and funding is based on cost-recovery, while RE programs are budget-driven and funded through the central College budget allocation from the University.

Simerly (1991) notes that as the core of higher education shifts to serving adults and part-time students, this situation is one of the critical issues currently facing continuing higher education practitioners. In many institutions, the adult part-time and evening or weekend students provided continuing education with its institutional distinctiveness (Long, 1992). At Penn State Harrisburg serving these students through what Lynton and Elman (1987) call "regular education" (p. 97) has been a thirty-year tradition.

---

[1] Penn State Harrisburg is an upper-division college and graduate center of the Pennsylvania State University. Located near Harrisburg, PA, the College enrolls a total of nearly 3,600 graduate and undergraduate students.

Long (1992), Lynton and Elman (1987), and Simerly (1991) all note that continuing education is at risk as the core of the institution moves to serve the populations of adult and part-time students who were once the exclusive market for continuing education. Long (1992) goes so far as to raise the proposition that "perhaps a separate unit for continuing education is no longer vital; perhaps the whole institution has become a continuing education entity" (p 38).

At Penn State Harrisburg it is doubtful that Long's question will be debated by the academic leadership. It is more likely that, as the regular education budget continues to be reduced, the College will seek to eliminate duplicative costs. If past trends continue, most of the reductions will come from non-academic areas. In this case, CE functions that duplicate RE functions are a logical choice for reductions in CE resources. It has already happened at other institutions. For example, Long (1993) predicted a similar change at Towson State University in Maryland and, more recently (1995) she confirmed that Towson State University's formerly independent College of Continuing Studies is now part of the College of Graduate and Continuing Studies. Based on recent Penn State Harrisburg budget reduction trends, higher education's recent shift toward acceptance of the responsibility to meet the degree needs of non-traditional students at non-traditional times and places, and the experience at other universities ... the Penn State Harrisburg CE leadership must assume that in the near future CE programs that are similar to RE programs will be shifted administratively from CE to RE.

EXPANDING THE CE OUTREACH ROLE

The problem to be considered by CE leadership is, "What will be the role of CE?" A role that may be appropriate for CE is to expand its activities to include research and service outreach. Long (1990) believes continuing education must contribute to institutional priorities to achieve continued support and outreach is the priority that best matches the capabilities of continuing education. At Penn State, "outreach is the generation, transmission, application, preservation, and enhancement of knowledge between the University and external audiences" (Penn State, 1995, p. 6). Examples of outreach activities at Penn State include off-campus credit instruction, non-credit instruction, applied research, technical assistance, public service demonstration projects, evaluation studies, technical assistance, and policy analysis. Outreach is a broader activity than continuing education (i.e., all continuing education activities are outreach, but not all outreach is continuing education).

Donaldson (1991), King and Lerner (1987), Long (1992), and Lynton and Elman (1987) believe that since higher education has moved toward interaction with the community, continuing educators will now be valued for their role as boundary spanners and supporters of the outreach function. Long (1992) proposes an organizational and functional structure that is representative of this line of reasoning. The continuing education office is restructured to perform a similar role for outreach activities that the research office does for the research function. In Long's model, individual continuing education staff are assigned as liaisons between academic units and the external community. The continuing education office is then the hub of communication and interaction between the academic units and the community. Positioned in this way, continuing education matches the needs of the community with the multidisciplinary capabilities and competencies of the institution. Continuing education then forms and manages effective partnerships and collaborations between the university and the community to address community needs.

Donaldson (I991) suggests an idea similar to Long's model when he writes "continuing educators need to serve the important bridging function between the protected core ... and the needs of society" (p. 125). King and Lerner (1987), who Donaldson credits for suggesting this function, describe one of the features of continuing education's new role in this way: "the emphasis is thus on the profitability of high prestige innovative programs, defining innovation in the joint terms of the practitioner community and the scholarly community" (p.33). The result will be "the continuing education unit ... is judged by the success of its role as a vehicle ... for the beginning of sustainable relationships with particularly identified elite, opinion-making groups." (p. 33). The image presented by King and Lerner has continuing education bringing outside groups together with academics, serving to break down lines of demarcation between the university and the community. In this role, continuing education serves to help "elite circles outside the university understand that "academic" does not mean irrelevant, and academics understand that scholars are not the only intellectuals" (King and Lerner, p. 35).

ASSESSMENT OF CE CAPACITY FOR OUTREACH ROLE

If this new role is to be adopted by CE at Penn State Harrisburg several questions must be answered. One question would be: Does the College community have a shared understanding of the value of CE in this role? Some will ask: If CE expands it activities to research and service outreach, will CE complement or duplicate the activities of the College's organized research units that are currently involved in research and service outreach activities? From a management standpoint, perhaps the most pressing question is: Does CE have the capability to undertake this expanded role?

Long (1992), in discussing her proposed model for structural and functional reorganization of continuing education, suggests that an organizational audit be completed to determine how CE can best serve the institution. She also suggests reviewing staff credentials to ensure that they have solid academic credentials and background to function in this new responsibility. It is Higgerson's (1988) work, however, that provides a specific framework to assess CE capacity. Higgerson recommends an "assessment of program readiness" (p. 63) to ensure that continuing education is positioned to meet the challenge of an expanded new role. The program assessment of continuing education is positive if two general conditions and eight criteria are met.

The first condition is alignment of continuing education with the academic programs. Without close alignment with the academic units, continuing education will be a marginal activity that is not respected by the core of the institution. With alignment to academic programs, continuing education will be able to draw on the core strengths of the institution. The second general condition is a "structure which accommodates change" (p. 63). Institutions that directly and interactively serve community needs find themselves in a sometimes volatile and constantly changing environment. To serve this environment, continuing education must have a structure "to know what and when change is needed" (p. 63). In addition to these conditions, the following list of criteria, which are adapted from Higgerson, must be met by continuing education:

The mission statement is compatible with the mission of the institution;
1. The program has a mechanism for continuous environmental scanning;
2. The content offered has academic and community credibility;
The staff have credibility with the faculty and are perceived as professionals who can assist faculty in the design delivery and marketing of academic material;
The staff have credibility with community opinion leaders and are perceived as professionals who can mobilize university resources to respond to community needs;
Utilization of a wide range of instructional technologies and university facilities;
Ability to implement new offerings and community programs with a minimal amount of lead time;

3. There is a mechanism to solicit program ideas from faculty, administrators and the community; and

Attention to quality, reputation, and to the community, as well as university image.

CONCLUSION

The value of using assessment schemes like Higgerson's to the field of continuing higher education would seem to be substantial. Based on the research conducted to develop this paper, there seems to be an implicit judgment that research and service outreach is an opportunity for continuing education, and that continuing education is equal to the task. It seems reasonable to expect these determinations to be made only after an assessment of the capabilities of CE are conducted. Explicit judgments and decisions about CE can then be made that are based on facts.

REFERENCES

Council on University Outreach and the Faculty Senate Committee on Outreach. (1995). Penn State's Outreach [Brochure]. Penn State, Author.

Donaldson, J. F. (1991). New opportunities or a new marginality: strategic issues in continuing higher education. Continuing Higher Education Review, 55 (3), 120-127.

Higgerson, M. L. (1988). Higher education in transition: a special challenge for continuing education. Continuing Higher Education Review, Spring, 59-66.

King, B. K., & Lerner, A. W. (1987). Organizational structure and performance dynamics in continuing education administration. The Journal of the National University Continuing Education Association 51, 21-37.

Long, N. R. (1993). Anatomy of a continuing education downsizing. The Journal of Continuing Higher Education, Fall, 26-32,

Long, N. R. (1990). Institutional strategies for continuing educators. Journal of Continuing Higher Education, Fall, 15-19.

Long, N. R. (1992). Tradition and transition: emerging continuing education leadership. Metropolitan Universities, 3 (2), 36-45.

Lynton, E. A. (1993). Metropolitan universities: partners with community and commerce, The Maine Scholar 6, 93-103,

Lynton, E. A. & Elman, S. E. (1987). New Priorities for the University. San Francisco: Jossey Bass.

N.R. Long (personal communication, November 27, 1995).

Simerly, R. G. (1991). Preparing for the 21st century: ten critical issues for continuing education. The Journal of Continuing Higher Education, Spring, 2-11.

Robert W.
Surridge

Assistant Provost for Outreach
Penn State Harrisburg
777 W. Harrisburg Pike
Middletown PA 17057
717.948.6029
rws8@psu.edu

Presented at the Eastern Adult, Continuing and Distance Education Research Conference, the Pennsylvania State University, University Park, PA, October 24-26, 1996.

LIFELONG LEARNING IN MUSEUMS
IN PURSUIT OF ANDRAGOGY

Andrew Jay Svedlow, PhD

ABSTRACT

Lifelong Learning in Museums was supported by the Smithsonian Institution's Office of Museum Programs' Research Fellowship in Museum Practices. The study is a small step in the investigation of the nature of adult learning behavior in the museum environment. A bracketed framework of four dimensions of adult learning behavior is presented. These four theoretical learning behaviors provide a window to view the behavior of adult learners within a museum exhibition. The four adult learning behaviors postulated are labeled in the study as - Social Learning, Theoretical Learning, Inquiry Learning, and Intuitive Learning.

INTRODUCTION

This report is a qualitative study examining the behavior of adult learners in a museum exhibition. **Beyond Category: The Musical Genius of Duke Ellington**, a Smithsonian Institution Traveling Exhibition Service (SITES) exhibition was used as a backdrop to analyzing such behavior. According to the SITES exhibition catalog, Beyond Category's "principal focus . . . is Ellington's music, presented in a series of environments that are provocative visual settings for Ellington's compositions. Rare photographs, manuscripts, artifacts, theatrical techniques, and special lighting are used to evoke scenes from Ellington's youth in Washington, his earliest years as a novice musician in New York, travels with his carefully cultivated orchestra, and some of his most exciting performances around the world. The design will echo Ellington's layering of colors, textures, tones, and timbres in his painterly approach to creating music."

A sample population of adults born before 1945 and after 1960 were interviewed and observed as they interacted with components of the exhibition. A retrospective history of the intentions of the developers and reflections of individuals associated with the project was also conducted to give some insight into the establishment of dimensions by which the study of adult learning behavior in such an exhibition could be analyzed and correlated to adult learning behavior theory.

ADULT LEARNING BEHAVIOR DIMENSIONS

"No provider of adult education is likely to deny that the range of adult learning needs is extensive and that each person has a unique set of needs" (Lowe, 1975, pg49). The Duke Ellington exhibition developers brought forward a designed environment that provides adults with the range of opportunities to learn about a subject matter. While distinct learning styles were not taken into consideration, the developers intuitively organized an exhibition that allowed adult learners to make choices that would best fit their interests and abilities.

The preliminary listing of learning behaviors noted below is related directly to data collected at the Museum of the City of New York and correlated with the age factor of the population observed and interviewed. These dimensions come from a response to the question, what are the dimensions of adult learning behavior in a museum exhibition? The categories are abstracted slices of the phenomenon of adult learning behavior.

From the "generative question" (Strauss, 1987) stated above the dimensions of adult learning behavior have been theorized as social, theoretical, inquiry, and intuitive. Since verification is not an issue in this qualitative study, the data collected and analyzed was not used to prove the validity of these metaphors for adult learning behavior, but were used to interpret them through the window of these dimensions.

It is the belief of the writer, that these four dimensions can best link the observed behavior of adult learners and theories of adult learning behavior in general. The distinctions offered below are, in positivistic trends of inquiry, more creative than validating. Yet for the purposes of this study, they provide the analytic structure by which the dialogue begins.

SOCIAL LEARNING

This is a learning behavior based on the manifestation of receptivity to actual concrete experience with one or more people. This dimension includes categories of behavior that represent interaction on a personal level within the exhibition, where-in the learner seeks feedback and interaction from companions, guides, guards, and other people. Continued questioning of the content and purpose of the exhibition is a hallmark of this learning dimension.

THEORETICAL LEARNING

This is a learning behavior based on rationalizations and abstract cause and effect behavior. Actions that belie a comfort with structured text-type learning and more academic approaches to assimilating information are manifested in this learning behavior, as well as behavior that fits well with the lecture format of a program or the text portions of an exhibition. These learners do not find much satisfaction in the physical interactive components of the exhibition or other dimensions that sit outside of the didactic teaching methods of the experience. A discussion of the logical progression of the themes of the exhibition and a formulization of theories associated with the themes of the exhibition is noted. Such learners provide a recount of many of the facts of the exhibition in order to form logical conclusions about the exhibition.

INQUIRY LEARNING

This is a learning behavior that manifests itself through physical interaction with exhibition components. Seeking of individualized learning modalities and interactive elements is a hallmark of this dimension. The physical act of doing is the dominant characteristic of this learning modality. An interest in the technical aspect of the exhibition is also to be found in this learning behavior.

INTUITIVE LEARNING

This is a learning behavior based on imaginative thinking and reverie. Hesitation to participate in the more extroverted aspects of the experience and, upon reflection, a manifestation of careful observation for the pursuit of personalizing the experience is expected. A manifestation of broader issues associated with the exhibition themes and a generation of ideas that are formed as analogies to these themes are noted.

THE EXHIBITION

A retrospective history of the development of the Duke Ellington exhibition was created as a backdrop to the exploration of adult learning behavior in the unique environment of the museum exhibition. Through interviews with the organizers of the exhibition a picture of the components and intentions of the developers unfolded. Csikszentmihalyi and Robinson (1990) refer to these types of informants as "experts whose familiarity . . . indicated that they would give us an idea of what" the phenomenon of adult learning behavior might be in this environment.

The general impression revealed by these informants' responses was that the exhibition was developed as an introduction to the music and times of Duke Ellington's life. The model visitor could be viewed as an adult non-music buff with at least a high school education. No special considerations, outside of providing easy physical access, were consciously or intentionally designed into the exhibition for any special learning group, such as older adults. The model visitor envisioned by the developers was not required to have a knowledge of the music of Duke Ellington. The race, gender, ethnicity, and age factors of the audience were also not a conscious element in the design of the exhibition itself.

Many developers did expect an older audience and felt that a draw to the environment of the exhibition would be a generational driven nostalgia for pre-World War II Jazz and Swing music. This group (made-up of more than one generation) is loosely defined as those visitors born before 1945, or before the Baby Boomer generation. In the data collected in this report, the pre-1945 audience observed and interviewed did verbalize some magnetism to the musical material. Yet, most of the non-expert respondents had not had a childhood or young adulthood filled with the music of Duke Ellington and were, in fact, transformed by the experience to accommodate the so called nostalgic music of Duke Ellington as a new element in the broadening of their horizons.

The expert respondents felt that the show gives audiences a knowledge of Duke and his music, that the interactives work extremely well and that the set constructions give a sense of the time and place of Duke Ellington's music. These intentions seem to have manifested themselves in the responses of visitors and in the observation of behavior.

LEARNING BEHAVIOR

Four adult learning dimensions were postulated above. The following is an expansion of the parameters of those dimensions. These dimensions of learning are pragmatic lenses to interpret the phenomenon of adult learning behavior in the museum environment. This personal and idiosyncratic behavior has been broken into these four constituent parts as a matter of discourse and for critical analysis. Each adult learner visiting a museum exhibition brings with them a personal historical perspective that shapes their experience. Wain (1987, pg10) states this internal conversation as, "the critical premise of the hermeneutical outlook" in "that we understand knowledge when we understand the social justification of belief, and thus have no need to view it as accuracy or representation; knowledge is something negotiated in social practice rather than an attempt to 'mirror nature.'"

As in this study, the facts of a visitor's behavior are mediated by the a priori conditions of their inquiry. No data provided by an informant, therefore, is irrelevant to the interpretation of the phenomenon. The pursued interpretation of the visitor's experience must also reflect the historical and idiosyncratic perspective of the writer whose interpretation is informed by this transaction.

SOCIAL LEARNING

As individuals make conscious and tacit choices about and during a museum experience they are also caught in the context of their habituated experiences. The paradox of being caught in the maze of one's own life of transactions has been referred to by Heidegger and others as the hermeneutic circle (Hirsch 1967). In making meaning out of an experience, an individual is limited in their interpretation of that encounter, and therefore in their assimilation and accommodation of new understanding from the encounter, by the circle of knowledge and understanding which they bring to the experience itself. Yet, learning takes place, and, at times, through the experience and reflection upon the experience, the individual is able to make a leap outside of the confines of the circle of their own context.

Social Learning was noted as a behavior that is based on the manifestation of receptivity to actual concrete experience with one or more people. This is, of course, a surface representation of the dynamics of making sense of an experience. Certainly, the individual and his or her compatriots on a trip to the museum share in the experience and have conversations that elicit information from the parties involved. Much of this behavior "occurs in childhood both through socialization (informal or tacit learning of norms from parents, friends, and mentors that allows us to fit into society) and through our schooling. Although we are encouraged to become increasingly self-directed in our learning as we grow older, the learning provided by our particular culture and by the idiosyncratic requirements of parents or parent surrogates is the learning that is rewarded" (Mezirow).

In the museum environment, social learners share in the experience with others and through this interaction with others, are able to make sense of the information being provided. That sense is shaped not just by the interactions with others, but by the social context from which this group of explorers takes its cues. The learning behavior of adults in the museum environment is dependent on community conventions learned over a lifetime and upon the context of accepted cultural behavior. Through the reflective mode of conversation and feedback with others, the social learner has the opportunity to take on the mantel of understanding of the others with whom she or he interacts. As Parsons and Blocker (1993) state; "at best all we can do is, through an act of imaginative sympathy, 'put ourselves in someone else's shoes.'"

The museum exhibition provides a convenient backdrop or catalyst for the initiation of this process of socialization. As in any learning situation, the experience is shaped by the personal history and cultural context of the individual. Those more briefed in the museum experience may be able to tap into many levels of a museum exhibition and interpret the experience with and for others in a way that provides a deeper transformation of the self and the other.

THEORETICAL LEARNING

It was stated earlier that Theoretical Learning belied a comfort with structured text-type learning and more academic approaches to assimilating information. In formal education environments learning, traditionally, has taken place under the direction of an instructor. In the more informal environment of the museum, the instructor might very well be seen to be replaced by the text itself. This is the exhibitions didactic mode of operation.

The text might very well be used by visitors as a means to weave a meaning for the exhibition as a whole. Most exhibition texts have a logical progression that leads a reader from one set of ideas to others. Summary conclusions are normally left to the visitor to formulate. The reading of museum exhibition text panels and labels is an unforced and often leisurely learning behavior. Learners in this environment don't have to be intimidated by an instructor, as might be transacted in formal learning environments. The choices an adult makes in the use of an exhibition are more spontaneous than in a formal setting. Yet, the structure of the text itself can provide a structure to the adult learner's experience that is in keeping with tutorial models found in adult education programs (Brookfield, 1986).

Theoretical Learners might be expected to provide a recount of many of the facts of the exhibition in order to form a logical conclusion as to the meaning or significance of the exhibition. This requires reflective time in order to regurgitate and articulate the text of the exhibition. As in Social Learning, and all the modalities of learning postulated, the learner participates in the experience within the framework of their habituated experiences which, in turn, shape the reading of the text. The more real life experiences that the adult learner has in common with the text of the exhibition, the greater likelihood of translation of the text into significant articulation of information provided.

Theoretical Learners might reflect on their experience with the exhibition through expressive details, such as in storytelling. This sharing furthers the resonation of the text and enlivens the personal meaning of the exhibition to the adult learner. Unlike formal education programs, the museum exhibition environment invites adult learners to structure their own critical inquiry. This provides the adult learner with the opportunity to place the information of the exhibition into the context of their own lives. Critical thinking tools and practice in museum exhibition encounters may be necessary to make this type of transaction a reality.

Theoretical Learners require a certain amount of discipline. What Brookfield calls (1986, pg171) "performance characteristics," such as "theoretical knowledge, increase problem-solving capacities, . . . practical knowledge" may be needed to analyze the data provided and to make analogous connections with other areas of interest or knowledge.

INQUIRY LEARNING

Adult learning behavior in museum exhibition environments, and other informal and formal educational settings, may be viewed as a spontaneous discovery of new ideas and information. "All methods of discovery learning start by assuming that the learner must actively create the experience through which he learns and that the learner himself must deduce rules" (Rogers, 1971, pg138-139). The implication in the museum environment is that some adult learners seek out a more physical and personal interaction with exhibition components. It was noted in interviews with, and observations of informants, that younger adults' inquiry had more lengthy interaction with interactive video and listening booth components of the exhibition, where as the older population sampled had a more directed look at text panels, labels, and inquiry into the music itself.

The Inquiry Learner is making choices that represent a more challenging approach to the exhibition environment. According to Carr (1985, pg54), "Because the learner is the source of design and inquiry and because the best path is not always clear, a strong tolerance for ambiguity is useful. So is a patient, responsive spirit." A number of older adults observed in the Duke Ellington exhibition manifested a greater patience in reading text and a more leisurely pace in meditating upon objects and tableaus. Carr continues (pg57), "Unlike learners in schools, self-directed learners in cultural institutions are responsible for the quality of both questions and answers."

It appears, on the surface at least, that older adults on solo trips to the Duke Ellington exhibition portrayed a more questioning or inquiring approach to the life, times, and music of Duke Ellington than younger respondents. Some of the older informants expressed great joy in leisurely strolling through the exhibition and in finding new information about Ellington's music, enough to push them toward further inquiry into the subject matter outside of their museum visit. Albeit, some younger informants expressed surprises and great interest in specific inquiry points, such as the Cotton Club or the impact of New York City on Duke Ellington's music, they also seemed less inclined to complete the process and follow through on a more involved path of inquiry.

INTUITIVE LEARNING

It is, of course, difficult to mechanistically reduce any learning experience into discreet blocks of behavior. As stated earlier, none of the perceived learning behaviors discussed in this study exist in a vacuum. They are necessarily interwoven in the complexity of human behavior. None is in a more honored position than another and no hierarchy exists in benefits to learners. With that in mind, it is still beneficial to bracket out the perceived phenomenon of the four behaviors observed in this study.

Intuitive Learning is no exception, and in many respects it is the most difficult to witness and abstract from transcripts. "Intuition - the ability to have immediate, direct knowledge without the use of language or reason - also plays a key role" (Mezirow, 1991, pg14). What might be most significant about adult learning behavior in the museum environment is this "direct knowledge without the use of language or reason." The Intuitive Learning Behavior amounts to a sort of internal tutor that guides the learner through exhibitions, making suggestions as to what to pay attention to, what to watch, what to guard against, and what to give of oneself to the experience. The Intuitive Learner apprehends the object within the exhibition, as opposed to thinking about it and making conscious choices of intent to seek out particular items.

CONCLUSIONS

At the outset of this study the assumption was held that the American population is graying in proportion to its youth and that it is becoming increasingly clear that educational institutions, such as museums, must make a dynamic shift toward incorporating older adult learners into the foundations of their programming and exhibition design. In fact, many museums across the country have been doing just that and this study backs that reality by pointing to the need for basic research on adult learning behavior in these unique informal educational settings. It is hoped that the four learning behaviors proposed in this study might be used by educators and exhibition developers to outline programming and exhibition design components that attend to these mechanistically reduced learning style needs.

Programmers might consider a greater array of educational formats to account for these learning styles. Seminar type programming, where adults might be able to interact on a more personal level, fits in well with the social learning dimensions discussed. Traditional lectures and demonstrations might suit theoretical learners, where-as hands-on activities and interactive programming might be more appropriate for inquiry learners. Self-guiding materials and room for meditative experiences could be organized for intuitive learning styles.

REFERENCES

Brookfield, S. D. (1986). *Understanding and facilitating adult learning.* San Francisco, CA: Jossey-Bass, Inc., Publishers.
Carr, D. (1985). *Self-directed learning in cultural institutions.* in New Directions for Continuing Education, March #25, p51-62.
Csikszentmihalyi, M. and Robinson, R. (1990). *The art of seeing: an interpretation of the aesthetic encounter.* Malibu, CA: J. Paul Getty Museum and the Getty Center for Education in the Arts.
Erikson, E. H. (1982). *The life cycle completed: a review.* NY: W. W. Norton and Co.
Hirsch, E. D. (1967). *Validity in interpretation.* Yale University Press.
Lowe, J. (1975). *The education of adults: a world perspective.* Paris: The Unesco Press.
Mezirow, J. (1991). *Transformative dimensions of adult learning.* San Francisco, CA: Jossey-Bass Inc., Publishers.
Parsons, M. J. and Blocker, H. G. (1993). *Aesthetics and education.* University of Illinois Press.
Rogers, J. (1971). *Adults learning.* Middlesex, England: Penguin Books.
Salthouse, T. A. (1983). *Adult cognition: an experimental psychology of human aging.* NY: Springer-Verlag.
Strauss, A. L. (1987). *Qualitative analysis for social scientists.* Cambridge University Press.
Sugarman, L. (1986). *Life-span development: concepts, theories and interventions.* NY: Methuen and Co., Ltd.
Wain, K. (1987). *Philosophy of lifelong education.* Wolfeboro, NH: Croom Helm.

Andrew Jay Svedlow, PhD, President
Manchester Institute of Arts and Sciences
148 Concord Street
Manchester, NH 03104

Presented at the Eastern Adult, Continuing and Distance Education Conference, Penn State University, University Park, PA, October 24-26, 1996

ISSUES IN ADULT EDUCATION HISTORIOGRAPHY: THE CASE OF WOMEN IN THE HISTORIES AND FOUNDATIONAL LITERATURE

Melody M. Thompson, Ed.D.

ABSTRACT

Revisionist historians contend that women have been "marginalized" and "silenced" by their virtual invisibility in the standard histories of adult education. Such a contention, if true, has serious implications for the field, in terms both of women's roles within adult education and the purposes that we expect our histories to serve. This research used a combination of historical and critical linguistic analysis 1) to analyze the adequacy of adult education historiography in addressing this issue, and 2) to suggest possible interpretations and explanations of the problem of women's historical invisibility.

INTRODUCTION

Revisionist historians have advanced a number of explanations for the invisibility of women in histories of adult education. Many of these explanations have introduced gender as a category of historical analysis and involve variations of the "circle effect". The circle effect posits that men construct a tradition of "received wisdom" validated by other men, resulting in a "charmed circle" within which no one asks what women think (Hugo, 1990; Noddings, 1990). The usefulness of this and related concepts as explanatory mechanisms has been limited by historians' often superficial application of the concept to the question of women's invisibility. Specifically, revisionist historians have 1) confused consequences and intent, 2) failed to recognize differences between times and between contexts, 3) neglected to examine adequately the changing nature of relationships between the field of adult education and its larger context, and 4) depended on generalizations and abstractions as explanatory devices. This paper will address these limitations and offer an enhanced explanation that integrates earlier approaches with the results of a historical and critical linguistic analysis of the early years of the field.

PROCESS

Historical research methods were used to study general social attitudes toward women, the changing internal context of adult education, and the changing relationship between adult education and the larger context within which the field of adult education developed. Critical linguistic analysis, supported by psycho-linguistic theory and research, was used to examine the descriptive (what is) and prescriptive (what should be) leadership discourse in adult education and to suggest how specific linguistic conventions may have made it difficult for historians to view women as leaders or potential leaders of the field and, thus, as appropriate figures to include in their histories. The texts chosen for linguistic analysis came from field-sponsored books and journals (texts) published between 1926, the year often cited as the beginning to the "self-conscious" American adult education movement and 1962, the year in which Malcolm Knowles published *The Adult Education Movement in the United States.* This time period is generally recognized as that during which the field became "thoroughly professionalized" (Welton, 1990; Wilson, 1992).

CONFUSION OF CONSEQUENCES WITH INTENT

Some revisionist historians have used outcomes to argue intentions and motivations: because women are generally absent from the written histories of the field, it is argued, they have been purposely left out; their pasts have been "silenced," "buried," and "repressed" from motivations of maintaining power and control (Hugo, 1990; Welton, 1993; Wilson 1993). These charges may be true; however, *as the arguments have been presented,* they reflect both bad psychology and inadequate historical analysis. As psychologist Jerome Bruner (1990) argues in *Acts of Meaning,*

> When people act in an offensive fashion, our first step in coping is to find out whether what they seem to have done is what they really intended to do, to get some line on whether their mental state...and their deed...were in concordance or not. And if they say they didn't intend to do it, we exonerate them. (p. 18)

Even if we do not wish to exonerate them—if, for example, we believe the ideas they have presented are damaging, as well as misguided—we reason with them, try to talk them out of continuing in their current wrong path, engage in "procedures of negotiation." What we do not do, if we are sincerely interested in finding a basis for "a viable pluralism backed by a willingness to negotiate differences in world view" (Bruner 1990, 19, 30) is to evaluate difference of perspective as "willful malice." To do so curtails the "open, respectful, and passionate" debate that should characterize academic discourse (Cannon 1994-5, p. 105).

COMPETING SUBUNIVERSES OF MEANING: ADULT EDUCATION AND AMERICAN SOCIETY

A second limitation of past applications of this concept to adult education arises from an incorrect assumption: that attitudes within the field consistently reflected those of the larger society. Attitudes toward women changed dramatically as the field developed, and early attitudes differed markedly from the attitudes that characterized the larger educational and social contexts. Indeed, the degree of difference is profound enough to support an argument that the early field represented what Berger and Luckmann (1966) term a "subuniverse of meaning" within the larger social context. One of the areas in which the field differed from the larger social subuniverse was in ideas about and attitudes toward women. Within these different and competing subuniverses of meaning, reality—in this case "knowledge" about the leadership of women—differed because it was socially constructed under different conditions and for different purposes. As a result, the "circle effect" also operated differently and to different extents within these subuniverses. Previous historians examining the issue of women's historical invisibility have paid relatively little attention to the significance of this difference. However, the visibility, acceptance, and recognition of women as leaders in an era otherwise characterized by widespread disapproval of women in positions of educational and social leadership is an important example of differences that affected the relationship of adult education to its social context.

The accepting attitude toward women as leaders apparently was influenced by several factors: values and a philosophical orientation based in Progressivism, a belief in the power of science to provide solutions to social and educational problems, leadership by "social philosophers" rather than professional educators, and conceptions of leadership based on traditionally feminine values and activities. Initially, adult education was a social movement that sought to alter some of the hierarchies and values prevailing in American society (Cotton, 1968; Zacharakis-Jutz, 1991). Indeed, many of the male reformers associated with the adult education movement consciously rejected the Victorian prescriptions of masculinity that they blamed for capitalistic expansion and destruction. Instead, they adopted the ideals of cooperation and reform long associated with women (Rosenberg 1984). The early literature of the field projects a social *vision* that apparently included a reorientation of hierarchical relationships between men and women. This accepting stance toward women as leaders was not congruent with prevailing social attitudes, which continued to reflect and perpetuate long-held beliefs of women's "proper place." The early leaders who had provided adult education with its initial philosophical impetus were indeed the odd ones out in terms of ideas about women's roles. Traditional attitudes toward women were particularly evident in 1) reactions to women in the professions and 2) the pronouncements of scientific experts, particularly psychologists, about women.

Between 1910 and 1940, percentages of women in the labor force remained relatively constant at 25%. During this time period, few significant inroads were made into new occupational areas; three-fourths of new career women went into teaching or nursing, while the proportion of women in male-dominated careers remained steady or declined (Solomon, 1985). Much of the resistance to women in the professions focused on the *idea* of women in the workforce, and this resistance was widespread and vociferous. A contemporary of Jane Addams, commenting on the reactions of families to their daughters' refusal to follow traditional paths, lamented, "Our families make us feel like murderers rather than joyous adventurers" (cited in Rosenberg, 1982, p. 65). Another form of resistance was expressed in the reluctance of employers to consider women for certain positions, particularly leadership positions. Solomon reports that although the number of women in secretarial or typist positions increased dramatically through this period, "in the business corporations there was no place for women at either the middle range or the top. Only under unusual circumstances in a family enterprise would a woman wield much power or influence" (Solomon, 1985, p. 198). Similarly, Tyack notes that although the teaching profession had become "feminized," with women holding 98% of elementary teaching jobs, school systems were run almost exclusively by men (Tyack, 1974)

Part of this resistance to women in leadership positions may have resulted from the fact that women, even highly educated women, did not match the models of leadership that had come to dominate American society by the early twentieth century. Within the field of education, as within the larger social context, the new forms for the legitimation of knowledge and power were those reflecting business practices and the "scientific" method of the expert (Hofstadter, 1974; Callahan, 1962). This situation had a significant effect on the professional context of women as leaders. The bureaucratization and "industrialization" of education resulted in a separation of the managerial aspect from that of teaching. The resulting intentional division of labor was based on sex-role stereotypes: women, presumed to be both naturally nurturing, understanding of children, and accustomed to patriarchal authority, were viewed as the ideal classroom teachers or "workers"; men were viewed as able to manage women and discipline students, and as capable of linking schools to the power structure in the surrounding district through contacts formed in all-male clubs and activities (Tyack 1974).

Developments in the new social sciences initially promised increased respect for women and their contributions to society. Experiments in social psychology, many of them conducted by women, provided evidence that differences between men and women traditionally thought to be based in biology were often the result of social conditioning. However, these developments proved disappointing in their ability to significantly change attitudes toward women and the value of women's contributions. Within the field of social psychology, which soon fragmented into different academic specialties, women were channeled into the less prestigious, practice-oriented area of social work, while men dominated in the higher-status, research-oriented areas of sociology and social psychology (Rosenberg, 1982). Even more damaging to women's academic credibility, the scientific findings related to sex differences increasingly were forced to compete with an alternative and popularly satisfying "scientific" interpretation of differences based in the "New Psychology." Although initially offering hope of a truly scientific approach to sex differences, the work of the social psychologists was ultimately unable to counter the influence of popularized Freudian psychology: "psychology became the favored 'modern' science for understanding women and society (Showalter 1978).

The focus on psychological motivations and drives influenced perceptions of women in or striving for professional or leadership roles. Freud stressed the uniqueness of feminine sexuality, delineating normal and non-normal patterns of behavior: thus, it was the desire to overcome "genital deficiency" that drove "a mature woman...to carry on an intellectual profession." From this perspective, women were not only out of place as professionals, but were jeopardizing their happiness and chances of healthy "adjustment" to personal relationships and to society ("Sigmund Freud," 1969). This view of women and leadership was not limited to popular culture, but made its way into the professional educational literature, as well (Tead,1935).

FOCUS ON A CHANGING REALITY FOR ADULT EDUCATION

Understanding the movement of women within adult education toward the margins of importance and influence must be based on an understanding of the relationship of the field to the contexts within which it developed. Examination of the dynamics of this relationship suggests explanations for the early incongruence and the later congruence between the two contexts in regard to apparent attitudes toward women.

In the early years of the adult education movement, its activities received private support from the Carnegie Corporation through the American Association for Adult Education (AAAE). This independence from institutional or public funding allowed the leaders of the field to set their own standards of credibility, which differed considerably from those of professional educators affiliated with and dependent on public or higher-education institutions. Withdrawal of the Carnegie support, however, necessitated finding new sources of support, and "major foundations, the government, and universities became adult education's logical partners (Carlson, 1977). The field of adult education, now in the role of "poor relative" rather than "independent operator," was forced to contend with a contextual reality represented by the image of "marginality." Coping with this new reality resulted in several changes within the field, including adoption of higher-education goals, a change in the composition of the field's leadership population, and a separation of theory and practice.

The alignment with educational institutions forced adoption of higher education goals, methods of knowledge creation, and standards of professional credibility. This move toward accommodation was encouraged by the university's tendency to demand allegiance to its goals and methods as the price of institutional support. As John Dewey commented at the end of his career, "the drive of established institutions is to assimilate and distort the new into conformity with themselves" (cited in Hofstadter, 1974). The alliance with public and higher education also resulted in a change in the leadership of the field. No longer were intellectuals and social philosophers the dominant influence; rather, a new leadership population comprised of university-trained professional educators began to determine both the direction the field should take and acceptable leadership standards. Finally, institutional affiliation resulted in an increasingly clear-cut division between theory and practice. This division was reflected in 1) the concept of a "pyramid of leadership" of which volunteer leaders formed the base, mixed-responsibility professional educators the middle, and an elite core of professionally trained educators with "career expectations" the apex; 2) a distinction within the Adult Education Association between general and professional members; and 3) the publication by the Adult Education Association of two adult education journals: *Adult Education* to serve educators devoted exclusively to adult education and *Adult Leadership* to enlighten part-time practitioners and others whose primary responsibility was to a field other than adult education (Knowles 1962).

"DECONSTRUCTING" ABSTRACTIONS

The decreasing visibility of women in history has been explained largely in terms of abstractions that underlie the circle effect. Hugo (1990), for example, names "professionalization" as a major factor in women's historical invisibility. She and others also point to an underlying and pervasive "patriarchal" social structure as an explanation for women's exclusion by historians. The abstractions represented by the terms "professionalization" and "patriarchal society" have been presented as if their meanings are both static and universally accepted. As such, they have been viewed as a sufficiently firm basis for an analysis of the events and trends to which they are applied.

In introducing the vocabulary of the feminist critique of history into adult education discourse, revisionist historians have neglected to consider the concept of ideologically contested meaning, that is, the idea that terms such as "patriarchal" or "professionalization" represent changing denotations and connotations that reflect alternative paths—and *ongoing* conflicts over meaning—with differing consequences for women. For example, in spite of many theorists' attempts to convince us otherwise, the term "patriarchal" is not universally accepted as a pejorative, even in the present day; it comprises a number of meanings that range from negative to positive, depending upon the discourse community in which it is being used. Neither is the term used exclusively to describe the hierarchical relationship between men and women; several early articles in *Adult Leadership* use variations of the term to caution adult educators against a teacher-student relationship in which the teacher treats "his" adult students (male and female) as children, rather than as peers.

Similarly, within the present-day academic community "professionalization" means having followed certain clearly-delineated steps in a process and having taken on certain well-defined characteristics. However, as Harold Young points out in his study of the professionalization of public school administrators, the term professionalization "is not the sole property of the social scientist," and, rather than indicating "objective features of organization," can refer instead to "the attempt to achieve a praiseworthy moral stance on the part of practitioners (Young, 1976, p. 11). The history of adult education shows that the term was not initially viewed in its present sense as a clearly defined path by which a field transformed itself; rather, it represented various degrees of and paths to organization and group identity. To use abstract terms in their current (and often contested) sense to explain events in a past in which the meanings of the terms may have been quite different (and also contested, although perhaps in different ways) is to succumb to "presentism in...terminology (Rose, 1995). It is also to neglect the evidence of competing subuniverses of meaning that is reflected both in the early dissonance between values within the adult education movement and within the larger social context and in an incongruity between earlier values and modern-day values.

TEXTUAL REPRESENTATIONS OF WOMEN IN THE LITERATURE

The obvious methodological challenge is documenting these relationships and their changes. Language, in this case the textual discourse comprising the literature of the field, provides tangible artifacts of these social processes. Because text both structures and maintains "shared versions of reality" within a field, changes in texts can be related to corresponding changes in the field that influenced attitudes toward women as important contributors or leaders. Earlier investigations of women's historical invisibility have suggested that "biased data sources," meaning institutional sources that excluded women (universities, the military, government, etc.), were one factor in historians tendency to ignore women. This research, through critical linguistic analysis of the foundational texts of the field, has expanded the concept of biased sources to demonstrate that *the texts themselves,* rather than just the institutional contexts of the texts, were biased sources of data for historians constructing their commentaries on the field's past. (The findings of my linguistic analysis have been reported in detail elsewhere [Thompson, 1996; Thompson and Schied, 1996]. As a result, I will provide here only a summary of that analysis.)

Until the 1940s much of the literature of the new field of study and practice shared several characteristics: it reflected adult education's Progressive roots in its focus on education for social change; it assumed that adult educators would possess a desire to serve others; and it presented leadership activities in terms of teaching, providing support, and preserving culture. The rhetoric of this period was characterized by its projection of a normative *vision* for adult education, and it is apparent from the references to women and women's activities that many early adult education leaders believed that this vision included equal status for women. Representations of women throughout this period were positive and consistent with acceptance of women as leaders. Little distinction was made between men and women as leaders: adult educators were discussed as a mixed group with common characteristics. However, the literature was also characterized by consistent use of what we now term "sexist" language. Although use of exclusionary linguistic conventions does not appear to have reflected the conscious beliefs of most adult educators, psycholinguistic theories and research suggest that such language may have made it more difficult for both men and women to think of women as leaders. Additionally, it may have influenced historians in their identification of "leaders" of the field.

Changes in the field and in its relationship to the larger social context were reflected in and perpetuated by changes in adult education discourse. The field's response to decreased funding and a disappointing lack of acceptance on the part of the greater educational community was reflected in changes in both tone and content within the literature. Specifically, the content changed from a focus on theoretical, "visionary" pieces written by nationally known intellectuals to an emphasis on descriptive and evaluative research reported by "scientifically" trained professional educators. The eloquent and crusading tone of earlier texts gave way to measured assurances of basic similarities to the larger educational field and a "scientific" tone and focus. Concurrently, women began to be represented as a separate population, and references to women as leaders were characterized by specific differences in tone and vocabulary. As the field attempted to mirror the values and "scientific" culture of professional educators, the adult education literature increasingly associated men—and only men—with power and leadership functions. Texts in the literature associated women almost exclusively with social service and supporting functions; journal articles, photographs, even cartoons reinforced the idea that men were leaders and that women were followers and helpers. As in the earlier literature, adult education texts during the 1940s, 1950s, and early 1960s were characterized by the pervasive use of exclusionary or "sexist" linguistic conventions.

AN INTEGRATED EXPLANATION OF WOMEN'S HISTORICAL INVISIBILITY

This research has attempted to provide the basis for a comprehensive explanation of women's historical invisibility by 1) strengthening and expanding on earlier approaches to the problem through historical analysis, and 2) demonstrating the textually biased nature of foundational texts through critical linguistic analysis. The results of this process suggest the following conclusions: 1) Changes in the field of adult education encouraged institutional associations to enhance credibility and stability; 2) New associations necessitated adoption of institutional goals and values. Developing a favorable image became a high priority; 3) Institutional perceptions of women generally were incompatible with women's credibility and leadership; and 4) Changes in the language of leadership both reflected and structured changes within adult education, and this new discourse inhibited associations between women and leadership. These intermediate conclusions support the main conclusion of the research:

Historians were influenced to overlook or ignore women as leaders because

- the need to project an image of adult education as a valuable and credible field encouraged the omission of women, who lacked credibility in the larger educational and social contexts; and
- the literature of the field, from which they drew the sources for their histories, increasingly represented women as followers or helpers rather than as the type of leaders who could strengthen the image of the field.

REFERENCES

Berger P. L., and Luckmann, T. (1966).*The Social Construction of Reality: A Treatise in the Sociology of Knowledge*. New York: Anchor Books.

Bruner, J. (1990). *Acts of Meaning*. Cambridge, MA: Harvard University Press.

Callahan, R. E. (1962). *Education and the Cult of Efficiency: A Study of the Social Forces that Have Shaped the Administration of the Public Schools*. Chicago: The University of Chicago Press.

Cannon, J. W. (1994-95) Mathematical parables.*BYU Studies* 34(4), 81-107.

Carlson, R. (1977). Professionalization and adult education: An historical-philosophical analysis. *Adult Education* 28(1), 53–63.

Cotton, W. (1968).*On Behalf of Adult Education. A Historical Examination of the Supporting Literature*. Boston: Center for the Study of Liberal Education for Adults, Boston University.

Hofstadter, R. (1974). *Anti-intellectualism in American Life*. New York: Alfred A. Knopf.

Hugo, J. (1990). Adult education history and the issue of gender: Toward a different history of adult education in America. *Adult Education Quarterly* 41(1), 1-16.

Rosenberg, R. (1982). *Beyond Separate Spheres*. New Haven: Yale University.

Rose, A. (1995). Review of *Adult Education in the American Experience* by H. Stubblefield, and P. Keane. *Adult Education Quarterly* 45(4), 227–231.

Sigmund Freud/Anatomy is destiny. (1969). In *Masculine/Feminine*, edited by B. Roszak and T. Roszak, 19-29. New York: Harper & Row.

Showalter, E. (1978).*These Modern Women: Autobiographical Essays from the Twenties*. Westbury, NY: The Feminist Press.

Solomon, B. (1985). *In the Company of Educated Women*. New Haven: Yale University Press.

Tead, O. (1935).*The Art of Leadership*. New York: McGraw-Hill.

Thompson, M. (1996). An historical and linguistic analysis of women in the histories and the early literature of adult education, 1926-1962. Doc. diss., The Pennsylvania State University.

Thompson, M. and Schied, F. (1996). Neither polemical nor visionalry: Language, professionalization, and the representation of women in the journals of adult education, 1926-1960. *Adult Education Quarterly* 46(3), 123-141.

Tyack, D. B. (1974).*The One Best System: A History of American Urban Education*. Cambridge, MA: Harvard University Press.

Welton, M. (1993). In search of the object: Historiography and adult education. Unpublished manuscript,

Wilson, A. L. (1993). Discourse analysis and hermeneutics: Methodological considerations in analyzing intellectual traditions in adult education history. Fourth Visiting Scholars Conference, in the History of Adult Education, Syracuse University, Syracuse, NY.

Wilson, A. L. (1992). Science and the professionalization of american adult education, 1934-1989: A study of knowledge development in the adult education handbooks. In *Proceedings of the 33rd Annual Adult Education Research Conference*, edited by A. Blunt, 260-267. Saskatoon, Saskatchewan, Canada: University of Saskatchewan.

Zacharakis-Jutz, J. (1991). The adult education movement in the 1950s. In *32nd Annual Adult Education Research Conference Proceedings,* 302–307. Norman, OK: University of Oklahoma,

---

Melody M. Thompson, Ed.D.
Publications Editor, The American Center for the Study of Distance Education, Penn State
110 Rackley Building, University Park, PA 16802

Paper presented at the Eastern Adult, Continuing, and Distance Education Research Conference, Penn State University, University Park, PA October 24-26, 1996.

APPLYING ADULT LEARNING THEORIES TO TECHNOLOGY BASED TRAINING

G. Dale Wagner

Learning as an end product emphasizes the outcome of the learning experience whereas learning as function takes into account certain critical aspects of learning. These aspects include motivation, retention, and transfer; all of which are assumed to make behavior changes in human learning possible. Learning as a process, on the other hand, emphasizes what happens during the course of a learning experience. The explanations of "what happens" during this process are called learning theories (Dubin and Okun, 1973; Gagne and Driscoll, 1988; Merriam and Caffarella, 1991).

Authors that specialize in adult education usually review different types of learning theory material and then extract the principles, laws, or concepts most helpful or applicable to adult learners. Merriam and Caffarella (1991) organized their discussions "according to orientations that present very different assumptions about learning and offer helpful insights into adult learning" (p. 125). With this in mind, their four basic orientations are behaviorist, cognitivist, humanist, and social learning. By understanding each student's strengths, deficiencies, knowledge base, interests, and prefer learning style, for example, an experienced platform instructor has the ability to manipulate the student's learning in a positive way in order to meet the student's instructional needs.

Technology based training (TBT) is an instructional tool that uses a combination of hardware and software to solicit student interest and facilitate the instructional content found within the course. Since the computer is the interface between the student and the software that provides the course content, instructional designers have been actively experimenting and pushing technology to enhance the learning capabilities associated with computerized instruction. Over the past several years, for example, TBT programs have become an increasingly widespread format for communicating technical information, especially over a distance.

Instructional design theories focus more on the instructor and methods of instruction while learning theories tend to focus more on the learner and the learning processes (Reigeluth, 1987). In order to construct a theoretical framework for TBT design, I investigated learning theories that have been incorporated within the instructional design theories. By merging these two different types of theories together, I believe that learner effectiveness can be determined by how well the instructional methodologies used within the TBT package match the instructional needs of the learners.

The adult learning theories serve to reinforce instructional needs and issues that should be addressed before computer based training development begins. When these theories are properly used in conjunction with instructional design theories, computer based education and training packages have the potential to maximize retention and provide positive learning experiences for all adult learners.

In conclusion, many high and mid level managers believe technology holds the key to delivering education and training to their employees. Unfortunately, an important question they generally overlook is, "Is the education and training effective?" Too often the emphasis is placed on the delivery technology rather than on the integrity of the instructional material. Managers need to become more cognizant of the learning theories and how they impact instructional design.

REFERENCES

Dubin, S. S. & Okun (1973). Implications of learning theories for adult instruction. Adult Education, 24(1), 3-19.

Gagne, R. M. & Driscoll, M. P. (1988). Essentials of learning for instruction. (2nd ed.). Englewood Cliffs, NJ: Prentice Hall.

Merriam, S. B. & Caffarella, R. S. (1991). Learning in adulthood. San Francisco: Jossey Bass Publishers.

Reigeluth, C. M. (Ed.). (1987). Instructional theories in action: Lessons illustrating selected theories and models. Hillsdale, NJ: Lawrence Erlbaum Associates.

G. Dale Wagner, 26 Laurel Drive, Hanover, PA 17331
Presented at the Eastern Adult, Continuing and Distance Education Conference, Penn State University, University Park, PA, October 24-26.

ADULT WOMEN: OUTCOMES OF EARNING A BACCALAUREATE DEGREE

Roberta L. Warren

ABSTRACT

Few college outcome studies include women graduates in sample populations, but today women comprise 55 percent of higher education clientele. Many students already have jobs and families. The research describes 208 women from three classes of graduates from programs designed for students unable to fulfill traditional college requirements. Sample partition by age at entrance created two groups; 84 (40%) who were traditional age at entrance and 124 (60%) 25 and older. A second partition by year of graduation (1976, 1981, 1986) produced six historical-time cohorts for additional analysis. It was expected that outcomes would differ between groups, related to the additional roles of the older women and to changing social mores over time. The data set was collected through the merger of responses to a mailed questionnaire with official college records. Chronological differences in ages at entrance were found not to be associated with differences in observed outcomes, although shifts in response patterns for historical-time cohorts were observed. The most significant characteristic of all graduates was gender, because of its strong conditional effects upon all experiences and outcomes. Primary outcome benefits identified by graduates included discovery and enjoyment of knowledge, association with peers and faculty members, and increased self-confidence and self-esteem.

INTRODUCTION

Historically, college attendance has been defined by age norms of 18 through 24 and described as a period before adulthood. This has been particularly true for women whose adult lives have centered on roles as unsalaried wives, mothers, and care-givers. However, today women of all ages are completing college degrees, many of whom have already assumed adult work and family commitments. Research is needed to investigate the causes and probable consequences of this apparent shift in female educational behavior

PREVIOUS OUTCOMES RESEARCH

There is little research focused on the outcomes of higher education, compared to that devoted to pre-college education. Most college research data is analyzed according to traditional concepts of four-year residential programs. A. Astin (1993), the preeminent researcher of college programs, excuses this bias by noting the special problems involved in studying nontraditional undergraduates (such as integrating data relating to their commuter residence patterns). In a review of adult undergraduate research from 1940-1989, Kasworm (1990) found only 345 pieces of available literature. Only six of these identified equity and outcomes. One of the six is a study by Sharp & Sosdian (1979) which analyzed responses to a mailed survey of 1,486 adults who participated in external degree programs throughout the United States. The authors categorized the graduates' goals on entering college, their reasons for choosing external rather than regular degree programs, and their perceptions of goal achievement after graduation. These goal and outcome concepts have been models for the descriptive categories used in subsequent research on outcomes, including Mishler's 1983 study of three classes of adult graduates from the University of Wisconsin system. and her secondary analysis of the 54 self-described "homemakers" in her original population.

The research study presents findings from a secondary analysis of an alumni survey project at a large northeastern university in 1991. The university offers evening programs designed for students who are unable to complete traditional college programs. The survey was undertaken to generate descriptions of students who had completed the programs. It was hoped that the findings would identify common characteristics of these nontraditional alumni that would suggest areas for future research and also help the university design relevant and appropriate programs for current students. The bulk of the 1991 data was obtained through a follow-up study of three classes, 1976, 1981, and 1986. Survey questionnaires were mailed to all 762 reachable graduates from the three classes. Responses on the 468 questionnaires that were returned were coded and the results merged with official college records. and provided data about a sample population of 468 graduates. Data analysis included t and F tests for significant differences in group means, factor analysis of the items in the imbedded Learning Scale items, and cross-break tables of frequency and percentage

The secondary analysis of the 1991 alumni survey data (Warren, 1995) explored the relevance of using traditional age norms of 18 through 24 as criteria to define today's female students. The research was designed to compare and contrast outcomes of college for the female graduates in the 1991 sample population who were traditional college age upon entering their programs with those of the female graduates who started at age 25 and over.

RESEARCH METHODOLOGY

After delimitation of the 1991 data to the 208 females, the principal independent variable was age upon entrance to the undergraduate program. Other independent variables, such as the year of graduation, occupational status, marital status and the presence and ages of children at home during college attendance, were used as controls during the investigation. The research question was: What are the differences and similarities between young women and mature women with respect to the association of their ages during college with the following outcomes: 1)development of learning skills and dispositions, 2) participation in graduate and continuing education and training, 3) occupational attainment, career advancement, and job satisfaction, 4) benefits attributed to the college experience? "Learning skills and dispositions" refer to items in the questionnaire's imbedded Learning Scale. They represent basic skills and dispositions meaningful for effective functioning in a variety of adult roles, which are logically predicted to be acquired through a college education. Occupational classifications are taken from the Classified Index of Industries and Occupations - 1980 Census of Population. "Career advancement" relates to earning more income, getting one or more promotions, and/or changing careers. "Job-satisfaction" refers to the Likert-type scale ratings that the respondents gave to any jobs they held before college, during college, and in 1991. "Benefits" attributed to college experiences refer to inductively coded response categories developed by the 1991 research team that were modeled after the contents and categories used by Mishler (1983).

COMMON CHARACTERISTICS OF THE SAMPLE POPULATION

All of the graduates shared important characteristics in addition to gender. Over 80% were white, middle-class part-time commuters who lived off-campus. In 1991, 85% of the women were employed, 77% full-time and 8% part-time. The most common majors while in college were Business and Management.

PARTITIONS OF THE SAMPLE POPULATION

The first partition of the sample by age at entrance created a group of 84 "YA"s (young adults, 18 through 24, 40%) and another of 124 "MA"s (mature adults, 25 and over, 60%). A second partition of both groups by years of graduation (1976, 1981, 1986) created 3 sets of historical-time cohorts; 1976, 33 graduates (16%), 1981, 84 (40%),and 1986, 91 (44%), numbers which reflect the steady increase in women undergraduates during the 15-year interval covered by the survey. The classes of 1976 and 1986 were divided almost equally between the two age groups, YA 48%, MA 53% for 1976 and YA 45%, MA 55% for 1986, while 1981 percentages were 32% YA to 68% MA, a difference probably associated with the national increase in the enrollment of older women in college programs during the early 1980's. Interestingly, the addition of the women who were 25 to 39 when they started college to the YA partition increased the overall percentage of YAs from 40% to 65%.

FAMILY COMMITMENTS OF GRADUATES

Marital Status and Presence of Children

According to adult psychologists, marriage and motherhood are crucial parts in the completion of all women's lives and current literature portrays family roles as the core of women's adult lives. The proportions of married women in the overall sample were 68% (YAs 60%, MAs 73%). Twenty-six percent of the YAs were single in contrast to only 7% of the MAs. There were also differences in the proportions of single women among the historical-time cohorts: 15% for 1976, 7% for 1981 and 22% for 1986. Nine percent of all YAs were divorced but only 16% of the MAs. Combining the "marrieds" with the "divorced" categories produced an "ever-married" group that accounted for 82% of the total population (YAs 69, MAs 89%). These findings show that the numbers of traditional-age graduates who were single during college varied but increased during the 15 years between classes but, in 1991, a majority of all graduates were, or had been, married and most graduates had children. However, the analysis of marital status was limited by the fact that the questionnaire asked only about the graduates' marital status in 1991, after all had graduated.

The questionnaire also asked graduates whether or not they had children, and, if they did, for the ages of those children. This topic produced a significant chi square statistic: x =.39, significance =.002 between the two groups. Only 50% of all of the YA graduates had children in 1991, a clear contrast to the 71% of MA who were mothers. In order to expand this analysis, the researcher made the assumption that the mothers, (60% overall), had probably been married when their first child was born. By comparing the age of the first child with the mother's year of graduation it was possible to separate the 130 mothers into 3 groups using categories of "school-age children during college", "children under 6 at home during college", and "children born after graduation". These divisions produced interesting contrasts between the younger and older women. Only 12% of the YAs had school-age children during college, contrasted with 80% of the MAs. Another 20% of the YA mothers had young children at home during college, compared to 11% of the MAs. Most interestingly, 68% of the YAs and 11% of the MAs had had their children after they graduated. A tentative interpretation of all findings suggests that there is a close association between the graduates' stages in their family life cycle with their higher education activities. However, the "mothers" analysis included only the age of the firstborn child of each mother.

RESEARCH FINDINGS

Learning Skills and the Disposition to Learn

Items of the imbedded Learning Scale included "understanding your abilities and limitations", "discovering and enjoying knowledge", "sense of personal competence", "working independently", "persisting at difficult tasks", "learning on your own", "organizing your time", "working effectively in groups", and "defining and solving problems". Graduates rated the contribution of their college education to their growth in these areas using rankings from 1 (very little) through 3 (unsure) to 5 (very much). Previous factor analysis of the 1991 data using Varimax rotation for the complete male and female sample population indicated two simple structure factors, one suggestive of "learning to learn" or instrumental learning skills, and the second suggestive of personal growth and self knowledge. Therefore, another factor analysis was made using only the female population, using Varimax rotation and loadings set at .50. Less definitive loadings were indicated from this gender-restricted sample, which suggests that, perhaps for women, some of the items may be aspects of both instrumental learning and self knowledge. When the overall Learning Scale data ratings were analyzed by t tests, only "discovering and enjoying knowledge" produced a significant difference, ($t = -1.97$, $p <= .05$) between the means for the age-based groups. Historical-time cohort ratings for each item were consistently lower than those of the MAs, although the combined average rankings for all items by both groups were surprisingly close, (YA mean 3.8, MA mean 3.9). A redefinition of the number ratings into three "scores" of "negative" (1,2), "unsure" (3), and "positive" (4,5) found that 85% of all graduates felt positively about their growth in most areas of the scale. The only category that received a bare 50% approval rating overall was "working effectively in groups".

Participation in Graduate and Continuing Education

Because previous educational achievement is thought to have a strong conditional effect upon all subsequent educational activities the 174 available Grade-Point-Averages from college records were compared. The YA group mean was 3.0 while the MA mean was 3.3. This difference produced a significant t value, ($t = 3.01$, $p <= .05$), and the data was analyzed further by frequency percentages. This procedure revealed that 55% of the YA graduated with GPA's of 3.0 or better, 20% with 3.50 or over and one 1986 YA achieved a perfect 4.0. In comparison, 70% of the MA group graduated at 3.0 or better, 38% at 3.50 and higher, and two 1986 graduates earned 4.0's, (one of whom was 52 when she entered).

Twenty-five percent of the whole sample (52) had continued their formal education and received graduate degrees but there were differing patterns among historical-time cohorts. Almost half the class of 1976 had achieved advanced degrees compared to 31% for 1981 and 15% for 1986. Most advanced degrees were MBA's. Several graduates had become lawyers, but there were no doctors or dentists. An additional 9% of all graduates were currently working for degrees, primarily graduates from the class of 1986.

The relatively small percentage of women involved in further formal education contrasted with the 70% of the graduates who had participated in non-credit educational or training activities. Most of this non-credit education occurred in employer-sponsored programs and those sponsored by professional or trade associations. Many women participated in several kinds of education and 54% were involved in non-work related education programs. Eighty-one percent of those employed felt that continuing education was important in their jobs.

Occupational Attainment

Historically, women's jobs have been less well-paid, less prestigious and less continuous than those of men. Moreover, the occupations of middle class women have clustered around socially-accepted teaching, nursing and routine clerical positions. The 1991 alumni study asked about graduates' occupations at three time periods in their lives: just before entering college, just prior to graduation, and "now" (1991). Two important patterns in the data from the female graduates were observed at once: many graduates shifted in and out of homemaker roles, and many graduates felt they combined two or more primary occupations, almost always linking "full-time homemaker" with another category. However, for analysis, data for women who were employed at any time were included with that of the employed graduates. Overall, 80% of the graduates were employed prior to beginning their college programs, but many more YAs (75%) worked full-time than MAs (66%). No YAs were homemakers before college but 12% were full-time students. In contrast, 24% of the MAs were homemakers and only one was a full-time student. In the year just prior to graduation there was a slight decrease in overall employment and the MA percentage of homemakers remained well above that of the YAs. However, by 1991, 85% of all graduates were employed, about 77% full-time and 8% part-time. Only 9% of the MAs were homemakers but the YA homemakers increased to 10%. These shifts in and out of the paid work force for both age groups probably reflect the passage of historical time and its effect upon the adult roles of the all graduates. The only consistent pattern in occupational outcomes was found to be an overall trend toward full-time employment for all graduates.

Career Advancement

Completion of bachelor's degrees resulted in more than increased numbers of graduates in the work force. The kinds of jobs held improved dramatically. Before college, only 8% of the 165 working women had held managerial and professional jobs, but, in 1991, 59% of those employed held such positions, divided almost equally between "managers" (31%) and "professionals" (28%). The rise in the proportion of women in professional specialties from 4% to 28% is noteworthy, but women have always been teachers, nurses, and counselors. Of greater significance is the increase in women working as "executives, administrators and managers" from 4% to 31%. There was also a sizable decrease in the number of graduates who held clerical jobs, from 59% pre-college to only 21% in 1991. Similar shifts out of clerical jobs were reported in the earlier outcomes research by Sharp & Sosdian (1979) and Mishler (1983). Unfortunately, another finding from the this analysis suggests that occupational segregation for working women continues because few graduates worked in other than white-collar positions at any of the three time periods covered by the survey.

Job Satisfaction

Job satisfaction for women is a difficult attribute to measure because of the strong conditional effects of both family roles and limited female occupational opportunities. Many of the graduates appeared to shift in and out of the work force because of changing adult roles over time, which included having children, changing jobs to work in a family business and retiring from the work force, (which several graduates identified as being "unemployed"). However, overall, most employed graduates reported getting more pay, receiving one or more promotions and some graduates had changed careers.

Benefits of College Experiences

The survey instrument included open-ended, multiple-response questions which asked about graduates' reasons for enrollment and also about primary benefits the graduates felt they had gained from their college experiences. Comparison of the inductively-coded categories for responses to both questions produced interesting results. These findings. are presented in terms of frequencies of response because both questions often received multiple codings. Nine coded reasons for enrollment were: 1) being able to work and attend college, 2) to obtain a better job, be promoted and/or change careers, 3) learning and self-improvement, 4) convenience, (class schedules and locations), 5) reputation of university/quality of curriculum, 6) sociability, 7) cost/affordability, 8) to earn a degree or credential, and 9) other. The graduates mentioned "convenience" in their answers significantly more often than any other specific category as a reaon for enrollment, (YA 55%, MA 45%), while "cost" concerned only 15 % overall. However, because most of the graduates were in-state residents, it is probable that affordability was an important enrollment factor for many. "Being able to work during college" was important for 40% of the YAs but only 12% of the MAs, a finding probably related to the higher percentage of YAS who were employed before college. Surprisingly, job changes motivated only 5% of either age group to enroll, even though over 60% of the women were employed when they began their programs. Educational aspects of the programs, such as the reputation and curriculum of the university and the desire to earn a degree were also important goals influencing enrollment.

There were 7 inductively coded "benefits" for the 1991 survey which included 1) self-worth, self-esteem, 2) high quality education, knowledge, and skills, 3) career advancement, 4) earned a degree, 5) fulfillment/personal accomplishment, 6) got job, and 7) other. Educational rewards were mentioned as benefits by almost one-third of all graduates. so it seemed that many graduates achieved their enrollment goals in those areas. Surprisingly, while "self-improvement" had been an enrollment incentive for only 4% of the graduates, many women included "increased self-worth" (YA 24%, MA 37%) and "fulfillment/personal accomplishment" (YA 28%, MA 41%) as primary benefits from their college experiences. It is also noteworthy that only 6% of the graduates, all MAs, included "got a job" as an outcome benefit. "Career advancement" was included as a benefit for 18% of the YAs and 22% of the MAs, although, as previously-mentioned, many graduates had voluntarily left jobs or downgraded from full- to part-time work at different periods. One of the most intriguing findings in the comparisons of goals to benefits was the observation that almost 50% of the responses to both reasons for enrollment and also benefits received from college were coded "other", usually in addition to other categories. By referring to the actual written responses on all questionnaires where "other" had been coded for either question, two characteristics of these answers were discovered. First, as a primary benefit of their college experiences, many graduates described their feelings of enjoyment and pleasure using phrases such as "I enjoyed every minute" and "I got a sense of enjoying learning". There were no coding categories for either question which covered these sensations. Second, although "sociability" was an option not coded as a reason for many enrollments, opportunities for peer and faculty relationships during college were deemed a primary benefit for many graduates. and this concept was not covered by any of the coded benefit categories. This second outcome concept also appears as a benefit of college in research about outcomes for traditional students.

DISCUSSION AND INTERPRETATION OF THE FINDINGS

The outcomes of college for the nontraditional women college graduates in the 1991 alumni survey population were not found to be associated with differences in their ages. However, the findings did reflect interesting patterns of differences in outcomes between historical-time cohorts. Overall, gender was the predominant characteristic of all students. It affected all outcomes though its influence upon the women's family roles, their employment opportunities and experiences, and their personal self-images. Since women of all ages comprise today's undergraduates, the findings from this study of 208 female graduates suggest that it may be appropriate for educators to reconsider using age as a defining characteristic of their college clientele. Moreover, the causes and possible consequences of the changes in the ages and other life style characteristics of the current higher education clientele must be investigated so that theories of adult and continuing education can be updated, and programs of utility and relevance for all higher education students can be provided.

REFERENCES

Astin, A. W. (1993) What Matters in College? San Francisco, CA : Jossey-Bass.

Kasworm, C. E. (1990) Adult undergraduates in higher education: A review of pat research perspectives. Review of Educational Research, 60, 345-372.

Mishler, C. J. (1983). From adult learner to wage earner: what happens to homemakers after college graduation. Journal of the National Association of Women Deans and Counselors, Summer, 15-21.

Mishler, C. J. (1983). Adults' perceptions of the benefits of a college degree. Research in Higher Education, 19, 213-230.

Sharp, L. M. & Sosdian, C. B. 1979). External degrees: How well do their serve their holders? Journal of Higher Education, 50 (5), 6115-648.

Warren, Roberta L. (1995). Adult Women: Outcomes of Earning A Baccalaureate Degree. Unpublished doctoral dissertation. Rutgers University, New Brunswick, NJ.

Roberta L. Warren, 100 Rotary Dr., Summit, NJ.

Presented at the Eastern Adult, Continuing and Distance Education Research Conference, Penn State University, University Park, PA October 24-26, 1996.

THE SIGNIFICANCE OF TRANSFORMATIVE LEARNING IN ADULTS ENROLLED IN A TEACHER EDUCATION PROGRAM

Drucilla Conner Weirauch

ABSTRACT: This descriptive study investigated critical reflection and transformative learning in adult undergraduate students (ages 28-65) enrolled in a teacher education program. Practical strategies for educators to use to foster transformative learning were also explored. Results study indicate that many adults enrolled in teacher education programs do indeed experience transformative learning as they move from re-entry to student to teacher, creating revised meaning perspectives and integrating them into their lives. Students identified practical strategies facilitating change. More research is required to examine the potential of specific transformative learning strategies in teacher preparation programs.

INTRODUCTION

Teacher preparation programs in our universities and colleges face a singular challenge. Although nearly every profession debates how novices can become "qualified," few demand the profound antithetical role change as that required by the teaching profession in transforming from student to teacher. After seventeen or more years of living the role of student and being immersed in the setting for which they are being trained to work, one completing study in a teacher education program must shift roles. Developing into a teacher transcends the mere acquisition of credits earned or hours served volunteering in a school. Although colleges and universities provide interim transitional opportunities such as pre-professional course work, field experiences, and student teaching, unless they foster development and critical reflection, these are but preparatory. Merely assuming the role or status of teacher is insufficient. To shift from student to teacher, one must develop a conscious awareness of self, construct new meaning perspectives, and redefine one's assumptions and behaviors that previously may have been unchallenged. Transformative learning theory provides a tenable framework for understanding the transitions one must necessarily encounter in the journey from student to teacher and the continuing role of teacher as student.

Research and theory development by Cranton (1994), (Hart, 1990), Mezirow (1978, 1981, 1990), Pratt (1989), and others provide important discussions on the importance of critical reflection or transformative learning in adult education and adult development. These theories seem particularly appropriate in teacher education programs where students must become critically aware not only of themselves, but also of the social domain of education under which they have been formed for many years. When new knowledge about theories and practices in education is presented to the teacher education student, s/he must assimilate it into the existing empirical matrix of teaching that s/he understands as a student, add it to the array, challenge old and construct new assumptions, and throughout all of this, begin the fundamental change from student to teacher. Though theory classes my build a knowledge foundation and methods classes may teach how to teach, they do not teach how to become a teacher; this requires a restructuring of one's frame of reference, the "conscious recognition of the difference between one's old viewpoint and the new one and a decision to appropriate the newer perspective as being of more value" (Mezirow, 1978, p. 10).

METHODOLOGICAL FRAMEWORK

To consider the significance of transformative learning theory and the potential of identified strategies, this study used a descriptive qualitative mode of inquiry. Adult students enrolled in a university teacher education program participated in semi-structured, tape-recorded interviews, consisting of specialized questions reflecting Mezirow's phases of perspective transformation

(Cited in Cranton, 1994). Additionally, the interview surveyed identified practical techniques, strategies and methods to ascertain those the adult students felt facilitated their own transformative learning. An interview guide assured that similar open-ended questions and probes were comsistently used. Latent content analysis extracted transformative learning themes and strategies from the tape recordings.

This purposive study sample consisted of twelve adult students participating in a grant-supported program of teacher education. All are fulltime paraprofessionals in an urban school district. Nine women and three men voluntarily participated. The age range in females was 28 to 65; in males, 30 to 46. Racially, there were three white females, six black; one white male, two black. All students had been in the grant-supported teacher education program for at least two years and were approaching the student teaching semester. The author is coordinator of the program and advisor to many of the students. There was a collaborative ethos during the (two-hour, average) interviews.

THEORETICAL FRAMEWORK

Transformative theory suggests a developmental progression of readiness to learn by changing life experience from a barrier to a conduit of growth. Reflection is an essential element. Clearly, the three levels of reflection Mezirow, 1990)--content (what?), process (how?), and premise (why?)--are evident in three developmental stages of teacher competence: mastery of skills and procedures (content, propositional, and procedural knowledge), clinical problem solving, and critical reflection on knowledge and values (Pratt, 1989). Indeed, the term "teachers' practical knowledge" incorporates the three competencies. It is the knowledge, theoretical and experiential, required for purposive problem solving in uncertain situations, and is "continuously shaped and reshaped by the teacher's personal history, by maturing insights into that history, and by the teacher's ideological perspectives" (Hirsch, 1991). When a teacher reaches the highest stage of development--critical reflection--competence requires understanding the relationship between one's teaching, personal and cultural values, and the ability to critically reflect on that relationship (Pratt, 1989), the why of premise reflection. Transformative learning strategies facilitate development.

A potentially powerful agent of personal and social liberation who ideally guides children to be active participants in society, a teacher must have more than mere mastery of content and skills. Learning to teach is one of reflecting on how "settings affect the development of personal perspectives rather than of how teachers learn a defined body of knowledge about practice" (Carter, cited in Hirsch, 1991, p. 100). Educators must facilitate this active reflection, move the teacher education students beyond content and process reflection to premise reflection.

Effective strategies have been identified by a number of adult educators. Such strategies empower the adult learner, stimulate critical self-reflection, and support transformative learning (Cranton, 1994). The strategies include: religuishing position power, equal participation in rational discourse, learner decision making, journal writing, fostering professional growth (Cranton, 1994); critical questioning and critical incidents (Hirsch, 1991; Shapiro, 1991); consciousness raising Hart, 1990); experiential approaches (Schoen, 1983); and fostering group cohesion (Hirsch, 1991; Shapiro, 1991).

RESULTS

A key step in transformative learning is the conscious recognition of self, assumptions, and beliefs and the difference between the old and the new (Mezior, 1990). Clearly, all of the adults interviewed had assessed their lives and assumptions since returning to school. Self-examination revealed past internalized role assumptions: "I remember my uncle saying, 'It's a shame you're a girl--all those brains going to waste. Because we were the 'black sheep' of the family, I tended not to challenge." Another, "When I graduated from high school, there was still a lot of racial discrimination so I got a job as an aide in a hospital. Since I was a woman and black, I didn't jump out and do what I wanted to do."

Many had experienced a sense of disequilibrium since returning to school. One man commented, "Not to make value judgements, but the people I used to know and work with are different. They talk about different things. I don't feel alienated, but limited." Also, "I don't talk to my family about how I'm doing or what I'm doing. It may make them uncomfortable--maybe they just don't know the questions to ask. I'm not alienated as a son, but it's not a part of my life that I share." All interviewees indicated strong support from family, friends, other paraprofessionals, and/or teachers. Even the "ghost" of a grandfather supported, "I never met my grandfather who taught in college, but he inspired me. As a young child I would fantasize about what he would say if I got a bad grade. He still is with me." One woman said her daughter gave her Control in the Classroom, with this inscription, "I hope you find this book interesting. I'm very proud of you." With that, the interviewee said, "I couldn't disappoint her because she had invested her pride in me."

On exploring new ways of acting, one woman commented, "The people I work with encourage me to teach them the stuff I've learned. I learn better because I'm teaching them." Of building self-confidence in their evolving new roles, one commented, "Little milestones, completing a course and doing successfully, build confidence. 'That was a nut I cracked.'" One felt confident enough to "take over now." Confidence built, all have changed their long range goals. "When I first started to school, my long range goal was to get 30 credits to be a EA III [highest level of paraprofessional]. Now long range--I will get my doctorate." And, "I want to be an administrator. I have a different focus than others."

All have made provisional efforts to try new roles, and some have reached Mezirow's final stage of reintegration. "I'm better at solving problems, my own and my students'. I am more systematic--what I'm going to say, how I'm going to say it, and how not to step on anyone's toes," or "I've taken on a leadership role." "As I take classes, I evaluate the strategies being used and consider how I could use them in my classroom." Finally to indicate her transformative learning, one woman commented, "How I've grown and changed has brought me where I won't even tolerate. I used to tolerate things, even if I thought they were wrong. Now I act. I won't tolerate."

All of the interviewees had experienced educators who empowered them. A compelling contrast was noted by man who saw the difference between two English professors, "Dr. L. considered us as learning partners. He was very inviting. People opened up. I'd talk with him about how music is like language and he listened. But with the professor I have now, it's more formal. Even if you have some bantering, still after the discussion, he has the final say. It's a feeling of being talked down to." Providing choices (methods or topics) also empowered, "We picked our own subject and had to apply it to educational psychology. The instructor would weave it into educational psychology. I was forced to see connections, contrasts. This maybe isn't good for a poor student, one who needs more structure." Choices in evaluation were rarely offered. Most instructors adhered to a syllabus, but there was often flexibility to allow students to alter timelines, bring in alternate materials, suggest topics. Students felt empowered by this. All students identified at least one instructor who provided for different learning modalities; one instructor even tested them at the beginning of class to ascertain how each best learned.

Education and humanities courses typically fostered critical reflection. Critical questioning to elicit reflection rather than information was especially effective, "We had one course where 'off the wall' articles were presented, and we had to respond." In another course, "We were given paper bags and asked to design a lesson plan around it. It required creativity and reflection." Consciousness raising also was effective. "One time we had to look at the opposite side. It was a debate and we had to research the side we disagreed with and present it. It opened me up. I changed my point of view." Ominipresent journal writing was critically reviewed. Some felt incapable of sharing personal thoughts in such a way, but one effective strategy noted was writing a journal from another's point of view. Field experiences and trips clearly allowed the adults to critically reflect. This remark sums up the value of stimulating critical self-reflection: "I love a professor who shocks. Someone who makes me think, "Wait a minute, what am I supposed to believe here?' They blindside you with a totally different perspective. It's like what Piaget says about disequilibrium and that's the best learning. Just when you think you have it and someone comes up and says, 'Nope.' When they take it from one place and make you readjust. I love that."

All students indicated the critical need for educators to be authentic in supporting their transformative learning. Group cohesion was important, but not group work, where "One person does all the work, but everyone gets the grade." Encouraging learner networks is critical for growth. Likewise, it is important for educators to encourage learners to become professional, "Belonging to a professional organization, planning a conference (not just attending one), and sharing journals have helped me think of myself as a teacher, not a paraprofessional."

CONCLUSION

More notable research and results exist beyond the confines of this paper. All of the adults interviewed had experienced transformative learning. Typical adult education methods and strategies were preferred by the students, but not all moved them to critically reflect. Even an identified effective strategy will not be effective if the instructor is not authentic or does not push it to critical reflection (Journal misuse is a good example). More research is required to evaluate the effectiveness of strategies that facilitate transformative learning and critical reflection. Attention should be given to returning adults and to traditionally-aged students in teacher education programs so that each individual develops the ability to be critical and reflective as he or she moves toward a personal perspective, transforming from student to teacher.

REFERENCES

Cranton, P. (1994). Understanding and promoting transformative learning. San Francisco: Jossey-Bas

Hart, M. (1990). Consciousness raising. In J. Mezirow & Assoc., (Eds.) Fostering critical reflection in adulthood: A guide to transformative and emancipatory learning. San Francisco: Jossey-Bass.

Hirsch, G. (1991). The Social Construction of Teachers' Practical Knowledge in the Advisement Conference

Mezirow, J. (1978). Perspective transformation. Adult Education, 28,(2). 100-110

(1981). A critical theory of adult learning and education. Adult Education, 32 (1). 3-24.

(1990). Fostering critical reflection in adulthood: A guide to transformative and em

Pratt, D. D. (1989). Three stages of teacher competence: A developmental perspective. In F.R. Hayes (Ed.)

Shapiro, E.L. (1991). Teacher: Being and becoming. In F. Pignatelli (Ed.) Thought and Practice: Journal of the Graduate School of Bank St. College of Education, 3(1).

Drucilla Conner Weirauch
Faculty/Coordinator
Department of Professional Studies in Education
Indiana University of Pennsylvania
303 Davis Hall
Indiana, PA 15705

(412) 237-3109

Presented at the Eastern Adult, Continuing and Distance Education Research Conference, Penn State University, University Park, PA, October 24-26, 1996.

FACULTY AS ADULT LEARNERS: IMPLICATIONS FOR FACULTY DEVELOPMENT INITIATIVES

Stephen C. Wilhite, Arlene D. DeCosmo, and Patricia A. Lawler
Widener University

ABSTRACT

This study examined the perceptions of university faculty who attended faculty development workshops that focused either on active learning techniques or computer technology implementation in the classroom. Although both groups of faculty were motivated to attend the workshops in order to make their classes more interesting, the two groups differed in the degree to which they perceived that the techniques being presented could influence students' motivation to learn instructional material and in their perceptions of how adequately the workshop prepared them to implement the new techniques. Faculty attending the active learning workshops were more likely to report that the workshop gave them ideas about understanding and motivating students and adequately prepared them to begin to implement the techniques presented. These findings point to the need in faculty development initiatives to link technology implementation in the classroom to the issues of what motivates students and how students process instructional materials. The results also suggest that faculty familiarity with the topics to be covered in development workshops should be assessed in designing the workshops.

INTRODUCTION

Although there has been recent literature on faculty development in university settings, these initiatives still offer challenges for administrators and program planners. Researchers at one university have been involved with ongoing research to identify faculty awareness of adult learning principles and methods and their use in college classrooms (Lawler, DeCosmo, & Wilhite, 1996). This research began in September 1994 and was prompted by the initiation of a faculty development agenda by university administration. As the university sought to address the demographic changes in its student population and their implications for classroom learning and retention, it provided workshops on teaching strategies, many of which came from the knowledge base of adult education and learning. The original study sought to answer questions regarding goals and objectives of the faculty development agenda in relation to the reality of classroom instruction. This paper presents a continuation of that research.

The original study (Lawler, DeCosmo, & Wilhite, 1996) investigated the underlying assumptions regarding the use of adult learning principles and methods by faculty in a mid-sized comprehensive university. The researchers were the Dean of University College, who was also responsible for the faculty development initiative, the Dean of the School of Human Service Professions, whose faculty work primarily with adult students in a variety of graduate programs, and a professor with a background in adult education and learning. For this study, they utilized qualitative and action research methods (Schensul & Schensul, 1992) to seek both information about and solutions to problems found in implementing successful faculty development programs.

There were two main findings in the original study. The results suggested that faculty development programs designed to improve teaching through the use of principles and concepts of adult education and learning may need to focus more on implementation issues than on familiarizing attendees with the principles and concepts of adult learning. In designing faculty development initiatives, explanation and demonstration may not be enough. This is supported by Gordon and Leinson (1990), who found that faculty development was most effective when the faculty learned by the same methods about which they were receiving information. The results of the original study also suggested that faculty concern for student motivation and diverse abilities in their classroom, cited as their biggest challenge, appeared to be the underlying reason many attended the workshops. However, faculty perceived little connection between presented strategies and their biggest challenge in the classroom. A central assumption about adult learning is that a person's readiness to learn is greater when one sees an immediate need to learn and to apply the learning to solve life problems (Knowles, 1980). The study also raised questions concerning the institutional culture and organizational context in which these development initiatives take place. results suggested that the linking of the administration's goals with the faculty's goals for change and development is crucial.

CURRENT STUDY

The current study continued the investigation of the issues raised in the original research during the latest offerings of the faculty development initiative in May 1996. The workshops were designed specifically to provide "hands on" opportunities, focusing on implementation of teaching methods and the use of adult learning principles. For the purposes of analysis, the workshops were grouped into two categories, those focusing on implementation of computer technology in the classroom (e.g., the use of Power Point or the World Wide Web as a part of classroom instruction) and those focusing on the use of active learning techniques in the classroom. The research assessed the faculty's perceptions regarding the use of these methods and principles and their implementation in the classroom, as a function of the type of workshop attended. Of concern were the anticipated obstacles to implementation, perceived organizational support or lack thereof, and the faculty's perceptions of their willingness to make changes in their teaching.

All faculty attending selected workshops were surveyed before attending to obtain information regarding their expectation, needs and prior involvement with faculty development. The faculty were again surveyed after the workshops to collect data on their perceptions and implementation plans.

RESULTS AND IMPLICATIONS

Table 1 summarizes the responses to the pre-workshop survey question concerning reasons for deciding to attend the workshop, as a function of whether the workshop selected focused on promoting active learning or on implementing computer technology in the classroom. Very large percentages of both groups reported that they were attending the workshop to find ways to make their classes more interesting and to learn something new and different. These results suggest that this highly self-selected subset of faculty subscribes to the view that student interest is critical to the success of instruction and that learning about new teaching techniques is inherently rewarding. However, a much larger percentage of the active learning group reported that they were attending in order to learn ways to motivate students to learn the material. This difference suggests that those faculty pursuing technology implementation do not perceive that these techniques will in turn directly influence how their students process and interact with the material outside of class. A much larger percentage of the active learning group also reported that they were attending in order to learn what others are doing in their classroom, perhaps suggesting that active learning techniques are perceived to be more widely in use in the classroom than are technological innovations.

Table 1

Percentage of Respondents to Pre-Workshop Survey Endorsing Each Reason Given for Deciding to Attend As a Function of Type of Workshop Selected

Reason	Type of Workshop Selected	
	Active Learning[a]	Technology Implementation[b]
To find ways to make classes more interesting	89.4	73.7
To learn ways to motivate students to learn the material	89.4	47.4
To grow professionally	73.7	76.3
To support colleagues presenting	21.1	7.9
To learn something new and different	73.7	71.1
The topic is interesting	42.1	50.0
Didn't like other topics	5.3	2.6
Curiosity	5.3	15.8
Desire to learn what others are doing in the classroom	68.4	36.8

[a] _n_ = 19. [b] _n_ = 38.

Tables 2-5 summarize the responses to the follow-up survey, as a function of whether the workshop attended focused on promoting active learning or on implementing technology in the classroom. Table 2 indicates that overall the active learning workshops were more successful in terms of meeting respondents expectations, helping respondents better understand or motivate students, and giving respondents skills and motivation necessary to implement changes in their teaching. Table 3 shows that those respondents who attended the technology implementation workshops perceive a greater need for additional workshops and working with a mentor or expert, whereas those respondents who attended the active learning workshops were more likely to suggest that observing another teacher in the classroom would be useful. Collectively, these findings suggest that those attending the active learning workshops may have had greater familiarity with the topic prior to the workshop and that multiple "hands-on" faculty development sessions may be desirable when faculty are being introduced to topics about which they are relatively unfamiliar. These findings also suggest that faculty development offerings focused on technology implementation need to address the issue of how technological applications in the instructional setting can impact student motivation.

Table 2

Percentage of Respondents to Follow-up Survey Answering "Yes" To Selected Questions As a Function of Type of Workshop Attended

Question	Type of Workshop Attended	
	Active Learning[a]	Technology Implementation[b]
Did workshop meet expectations?	92.9	82.7
Did workshop give ideas about understanding/ motivating students?	85.7	62.1
Did workshop provide enough hands-on application for beginning implementation?	85.7	65.5
Will any techniques presented be implemented during next academic year?	78.6	65.5

[a] n = 14. [b] n = 29. The same applies for Tables 3-5.

Table 3

Percentage of Respondents to Follow-up Survey Endorsing Each Answer Alternative to the Question, "If any additional resources are needed, which of the following would you find useful?", as a Function of Type of Workshop Attended

Answer Alternative	Type of Workshop Attended	
	Active Learning	Technology Implementation
Additional workshops	21.4	48.3
Casual discussions with colleagues	28.6	17.2
Working with a mentor/expert	21.4	41.4
Reading about technique on my own	21.4	24.1
Observing another teacher in the classroom	42.9	24.1
Watching a video demonstration	21.4	13.8
Other	7.1	3.4

Consistent with the results of the pre-workshop survey, Table 4 shows that large percentages of both groups of respondents indicated that they were being motivated to make changes in their teaching in order to make their courses more interesting. However, as in the case of the pre-workshop survey, a much larger percentage of the active learning group reported that they were pursuing the new techniques in order to help motivate students to learn. In addition, respondents in this group were more likely to cite meeting the diverse needs of new students and reducing student attrition as reasons for investigating the new techniques than were respondents in the technology implementation group. On the other hand, respondents in the technology implementation group were more likely to cite the need for change and the need to stay current as reasons for implementing the techniques being presented in the workshops. These findings again point to the need to link technology implementation in the classroom to the issues of what motivates students and how students process instructional materials.

Table 4

Percentage of Respondents to Follow-up Survey Endorsing Each Answer Alternative to the Question, "What is encouraging you to implement this change in your teaching?", As a Function of Type of Workshop Attended

Answer Alternative	Type of Workshop Attended	
	Active Learning	Technology Implementation
Making course more interesting	78.6	72.4
Need to motivate students to learn or enhance student learning	71.4	48.3
Need for change	14.3	27.6
Need to stay current	21.4	55.2
Meeting diverse needs of new students	42.9	27.6
Encouragement by teaching colleagues	7.1	6.9
Encouragement by deans, department chairs, associate deans	7.1	6.9
Need to reduce student attrition	35.7	6.9
Other	7.1	0

Table 5 shows that respondents in the technology implementation group were more likely than respondents in the active learning group to report being discouraged about implementing the targeted change in their teaching, particularly in relation to the adequacy of their knowledge and training. These results again point to the need for multiple faculty development sessions on topics about which the attendees are unfamiliar.

Table 5

Percentage of Respondents to Follow-up Survey Endorsing Each Answer Alternative to the Question, "What is discouraging you from implementing change in your teaching?", As a Function of Type of Workshop Attended

Answer Alternative	Type of Workshop Attended	
	Active Learning	Technology Implementation
Don't know enough about the technique	7.1	27.6
Did not receive enough training	7.1	17.2
Do not know who to call if I have a problem	7.1	3.4
No connection between content of workshop and challenges in the classroom	7.1	13.8
Insufficient support from colleagues	7.1	0
Insufficient support from deans, department chairs, associate deans	0	3.4
Time spent improving teaching is not recognized through merit system	0	6.9

REFERENCES

Gordon, G. H., & Levinson, W. (1990). Attitudes toward learner-centered learning at a faculty development course. Teaching and Learning in Medicine, 2(2), 106-109.

Knowles, M. S. (1980). The modern practice of adult education: From pedagogy to andragogy. New York: Cambridge University Press.

Lawler, P. A., DeCosmo, A. D., & Wilhite, S. C. (1996). Faculty awareness and use of adult learning principles. 37th Annual Adult Education Research Conference Proceedings, 212-216.

Schensul, J. J., & Schensul, S. L. (1992). Collaborative research: Method of inquiry for social change. In M. D. LeCompte, W. L. Millroy, & J. Preissle (Eds.), The handbook of qualitative research in education (pp. 161-200). New York: Academic Press.

Stephen C. Wilhite, Dean of the School of Human Service Professions, Arlene D. DeCosmo, Dean of University College, and Patricia A. Lawler, Associate Professor of Education, Widener University, One University Place, Chester, PA 19013. The authors wish to thank Susan Ebert for her assistance in analyzing the data.
Presented at the Eastern Adult, Continuing and Distance Education Conference, Penn State University, University Park, PA, October 24-26, 1996.

ADULT EDUCATION FOR WORKERS:
THE INTERNATIONAL LADIES' GARMENT WORKERS' UNION IN NORTHEASTERN PENNSYLVANIA, 1944-1963

Ken Wolensky

As ILGWU Wyoming Valley District manager, Min Matheson integrated formal and informal workers' education as part of the union's activities from 1944 to 1963. Workers' education transformed the union from virtual powerless in 1944 to an activist movement by 1963. Part of the story of this remarkable turnaround is told here utilizing oral history. It is illustrative of an often forgotten part of adult education's history in United States.

During the early to mid-20th century coal barons controlled the economy of northeastern Pennsylvania. American industrialization was born in this 500 square mile region of the northern Appalachian mountains with its enormous deposits of Anthracite or hard coal. Anthracite fueled the rapidly expanding industrial economy throughout the United States. Mining towns emerged in the region and drew immigrants who supplied cheap labor to mine owners.

Like much of Appalachia, following several decades of meeting the country's growing demands for coal the region's single-industry economy began a downward spiral in the 1920s and collapsed in the 1950s largely due to labor-management conflict and competition from alternative energy sources. With few employment alternatives, thousands of struggling families turned to permanent out-migration, long distance commuting and employment by mothers and daughters in the growing regional garment manufacturing industry. Garment factories mushroomed in the area attracted by a large pool of female labor willing to work for low wages in poor conditions to support desperate families.

Upon assuming the presidency of the ILGWU in 1932, David Dubinsky set out to organize garment factories in northeastern Pennsylvania's Wyoming Valley. This would be no easy task as organized crime owned or influenced many factories particularly in Pittston, a coal town at the southern end of the Valley.

In 1944 Dubinsky charged the task to Minnie (Min) Lurye Matheson. Born in 1909 to an immigrant Russian-Jewish family, Matheson's youth was immersed in socialist labor culture as her father headed the Chicago Cigar Makers Union. Later in life she became involved in the labor movement as an organizer for the ILGWU in New York City's garment district and was subsequently assigned by Dubinsky as Wyoming Valley district manager. Her efforts to organize in northeastern Pennsylvania were captured via audio-taped oral history interviews on three occasions during the 1980s. This paper presents part of the history of Matheson's efforts and is illustrative of grass-roots workers' education.

HEGEMONY AND WOMEN GARMENT WORKERS

The Wyoming Valley was attractive to garment factory owners, particularly those from outside of the area. As Matheson (1988) describes:

> All the mines were down, men weren't working. We organized in New York and surrounding areas. The wages were getting higher. Employers were looking for low wages and areas where they could produce garments at the lowest level possible so they went to the coal fields of Pennsylvania. At that time things were happening [with organized crime]...the big shots in New York, the Genoveses and Albert Anastasia, were having their legal problems. So they wanted a legal front for their illicit activities, which included everything. They had really set up a [garment] center in Pittston. Whatever they were doing to entice [women] to get them or push them into it. So now they needed a legal front and the dress industry was easy. You need very little capital and all you have to do is have a handful of machines and you're in business. And all these manufacturers in New York who were looking for cheap labor outlets loved it. Work was coming in plentifully and these shops were growing, mushrooming.

As Matheson (1982, 1988) studied the situation she was struck by the subservience and powerlessness of women;

> The atmosphere in the town was that everything was controlled and the women had no say at all. They did the cooking and the sewing and taking care of the lunches and getting the men out to work in the mines and the kids out to school. They were active in their churches. Many went to work in garment factories. This was their life. They [shop owners] told the women, for example, "We'll teach you to sew". They worked for weeks for nothing. And the hours! You know there were [labor] laws in the land but they weren't carrying out any of the laws. They made it easy for the women to come in any time of the day or night. Double, triple shifts.

Powerless on the job was merely as extension of vulnerability in the larger community as Matheson (1988) explains:

> I'd talk to the women at meetings. And the first thing is, "Are you registered to vote?' Yes, they're registered to vote but they don't vote. "Why don't you vote? Do you go down and vote?" "Well, we do, we go down and we register but
>
> we can't cast our vote. Our man has to cast our vote for us". I asked why ? "Well, that's the system". That's the system the Mafia had ordained to control the elections. The women would go in and sign as citizens but then the man [husband or other male] would go in the polling place and cast their vote. The women were never allowed to vote.

The position of women in the community seemingly motivated Matheson and fellow organizers to work all the harder yielding impressive results. When organizing began the union had 650 members in 6 valley factories. By 1963, the district consisted of 168 shops in three locals with a total of 11,000 members. How were so many women mobilized in an environment of powerlessness ?

COUNTER-HEGEMONY: ORGANIZING AND BUILDING AN ILGWU COMMUNITY THROUGH LEARNING, EDUCATING, BUILDING AND SHARING KNOWLEDGE

Attaining such results required building an activist organization of garment workers united in promoting mutual working class interests. Building an activist organization likewise involved establishing an educative infrastructure. Formal education, as in a classroom with an instructor, was part of the agenda, but a small part in the overall effort. Learning, educating, building and sharing knowledge also occurred through many informal means. Formal and informal education included establishing a district-wide newsletter, health care center, chorus, workers' education programs and grass roots political activism.

The district began a monthly newsletter, Needlepoint, packed full of educational material for garment workers. First published in 1946, Needlepoint contained photos, a message from Matheson, articles on union news, discussion of political, social, economic and legislative and policy issues impacting workers, calendars of ILGWU community events, stories and literature about life, work and family as well a letters-to-the-editor section. Needlepoint served as an important educational for it became the principle medium for knowledge sharing between and among ILGWU leadership and rank-and-file. It provided garment workers with valuable connectedness to the larger organization of which they were a part. And, by 1963 the newsletter reached all 11,000 members.

As illness, disease and on-the-job injury soared in the garment industry, ILGWU organizers saw a need to establish a union health care center. This was particularly significant in an era when health insurance for workers was uncommon and when the only access to health care for those who could afford little might be a sympathetic medical doctor or hospital or, perhaps, a public health program. The center had two goals. First, to diagnose and treat disease, illness and injury, and, second, to educate members regarding personal health issues. Accident and disease prevention, job safety, diet, exercise, adult and child physical and mental health and immunization were important center services and educational outreach efforts beginning in 1948.

With a growing rank-and-file attributable, in large part, to successful organizing efforts, Matheson and fellow organizers recognized the importance of providing members with social outlets which boosted individual self-esteem and served an educative purpose. A highly successful musical chorus of local male and female union members was established in the early 1950s. The chorus was another important vehicle to promote learning among garment workers; both those who were part of it as well as those who followed its performances. It pioneered several songs, skits and other types of entertainment which often reflected a political, pro-labor message. As it grew in size and popularity the chorus performed at local and state-wide political functions, holiday parties, Labor Day parades, union activities and other events.

Worker interest in formal education resulted in union sponsored workers' education programs. For example, the ILGWU frequently held "Educational Institutes" or day-long formal classes which focused on specific topics such as politics and government, organizing, labor history, economics and social issues. Workers participated in conferences, union meetings and special educational institutes at Unity House, the ILGWU's vacation and conference center in the Pocono Mountains. Often, the workers' education agenda at Unity House included sessions on politics and its impact on workers. Guest speakers included prominent or up-and-coming public officials such as Eleanor Roosevelt, former Pennsylvania Governors including George Leader, David Lawrence and Robert Casey as well as representative of Pennsylvania's Congressional delegation including Senator Joseph Clark and Congressman Daniel J. Flood.

Formal workers' education programs also included a myriad of ongoing union sponsored classes. These included classes focusing on writing and typing skills; health care center sponsored seminars; photography courses; millinery classes; swimming lessons; shop fire warden's sessions and well as courses on factory health and safety. Finally, a liberal arts certificate program, consisting of evening classes, was established in conjunction with local Wilkes College (now Wilkes University). History, economics, labor history and other courses were available to garment workers who would not have otherwise had any opportunity to attended college.

Matheson (1988) describes this important opportunity afforded garment workers:

> We had classes here too, you know. I asked Dr.Rosenberg and Gene Farley [economics professor and President of Wilkes College, respectively] if they would hold classes for our people at Wilkes. They thought it was a great idea. I thought it was a great idea because, to me, college was something none of us could afford in our years and to be able to say that we're going to school at Wilkes was a real feather in our cap. So they set up classes for us. And the women loved it. We kept that going for quite a long time. We got certificates and we had graduation and so on.

Workers' education was also apparent through the manner in which the ILGWU evolved to become politically active. Activism in the arena of politics took two specific forms.

First, it meant educating garment workers regarding the mutuality of their interests with the supportive political philosophy found in the Democratic Party. A considerable feat, given that Republicans outregistered Democrats in Luzerne County by a three-to-one margin in the early 1950s. To the ILGWU, however, while Republicans dominated the local political arena, it was Democrats who delivered on the "bread-and-butter" issues impacting workers. And it was Democrats who best understood the needs, wants and desires of people who worked for wages.

To communicate this message, the union established the Political Education Program or PEP Club. Clearly partisan in orientation, PEP was involved in conducting classes and seminars on national, state and local politics, advocated specific positions on legislation and issues and endorsed candidates for public office such as 11th Congressional District Representative Daniel J. Flood. Likewise, the union utilized Needlepoint, educational institutes and other platforms to endorse and support Democrats and encourage voter registration and participation in the electoral process.

Second, the union's rhetoric met reality in seeking out, supporting and endorsing specific Democratic politicians friendly to their cause. Dan Flood was one example. Former Pennsylvania Governor George M. Leader is another. According to Matheson (1983, 1988):

> Dan Flood helped us all the time. We helped him and he helped us. He fit just perfectly into what we were doing. When he became an influential Congressman we helped to elect him. We worked very hard for him from one end of this valley to another. He always used to give us credit for sending him to Congress.
>
> This area was Republican. Rock-solid Republican. And we, in our fashion, did a great deal to turn it from Republican to Democrat. We worked very hard to elect Governor Leader as a Democrat and that's how we broke the Republican chain of command.

According to former Governor Leader (1995):

> The Democratic Party was not terribly strong in Anthracite counties. The ILGWU was the only Democratic force in the area. Min Matheson had mobilized the ILGWU as a political force that had to be reckoned with. Their presence was being felt. Min wasn't just a labor organizer. She was a political organizer and educator.

Through its various mediums, the union strongly advocated for the policies, positions and legislation advanced by such public figures. ILGers backed both Flood and Leader on issues of great importance to workers such as minimum wage increases, Medicare and government aid to economically depressed areas. Thus, not unlike many American labor unions, as part of its educational agenda the ILGWU linked the advancement of the causes of working people with the philosophy of progressive Democrats.

CONCLUSION

After sheparding the Wyoming Valley District for nearly twenty years, Min Matheson departed for an assignment in New York City. To Matheson and fellow ILGers, workers' education was a means to enhance understanding of injustice, inherent community power relationships and ways in which traditionally accepted inequities could be challenged. Education inspired enhanced commitment to the cause of workers, challenged hegemony, provided a voice for the powerless and built self-esteem.

In summary, the story of Min Matheson and the ILGWU is a story rooted in a radical, humanist tradition familiar to adult education. Not unlike Myles Horton and Highlander, for example, this story contributes much to our understanding of the history of adult education and social change. It returns adult educators to a time when, as Heaney (1982) states, "Adult Education had something to do with democracy and social transformation".

REFERENCES

Heaney, T. (1982). When adult education stood for democracy. Adult Education Quarterly, 43(1), 51-59.

Leader, G. (Narrator). (1995). Wyoming Valley oral history project {Cassette Recording}. Stevens Point: University of Wisconsin, Department of Sociology and Anthropology.

Matheson. M. (Narrator). (1982, 1988). Wyoming Valley oral history project {Cassette Recording}. Stevens Point: University of Wisconsin, Department of Sociology and Anthropology.